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APRIL, 1882.

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FROM ALL PARTS of the country we learn of the improvement of grounds and receive numerous requests for assistance in the work. But instead of giving attention to the details of individual places, better service is performed in the publication of general principles, and these our readers can apply as occasion may offer. The difficulty with published plans is that they will not serve as copies; still, the desire for them is so often expressed, one is here introduced which, if of no further benefit to most of our readers, may at least show the manner of applying some of the principles of landscape art, and indicate how, by the judicious planting of a few trees and shrubs, a naturally unattractive piece of ground may be transformed into a pleasant scene, and how, also, perhaps what may have been considered the deformities of the place may be made to increase its beauties. The place, that the plans here shown refer to, is in Lawrence, Kansas. The owner, in writing to us, gives the following statements and description:

"I enclose a plan of our yard. It needs improving badly; most especially we need some good walks. The house stands about one hundred and seventy feet back from the front gate. As the house is not exactly opposite the gate, I think a straight walk would not look well. Will you please show me what you think would

be the most pleasing curves, and give me what other information you think would help me in fixing up.

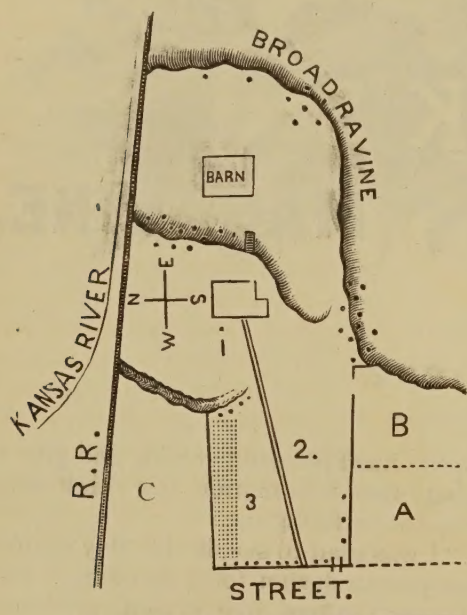
"I was glad to see, in the May number, last year, a design for a dwelling. Many of your readers, like myself, are young men who, perhaps, before many years, will build homes for themselves. Any good ideas obtained now may be worth many dollars to us then.

"The big gate at the side opens into an open foundry yard, B, that fronts a street on the south; we most frequently walk and drive through this gate in going to town. The business part of the city lies southeast of our place. The little dots bordering the front and side fence represent trees—Soft Maple and Box Elder; they stand ten feet apart. The shaded line at the side and back of the house represents a descent of the land toward the barn, but not quite so steep as represented. The river bank bordering our yard is about twenty feet high. There is a very beautiful view up the river, northwest, from the bank and from the house. The little dots bordering the ravines represent native trees—Walnut, Hickory, Elm, Sycamore, Oak, Willow, Red Bud, etc. It may be well to state that the Atchison, Topeka, and Santa Fe railroad passes by the yard, close to the bank of the river; opposite the house it is eight feet below the level of the yard, but op-



posite the barn it is on about the same level."

We need here to add only, that the figures on the sketch refer to trees now on the ground. Number one is Catalpa, two, a Walnut, and three, an Elm. The space at the left covered with dots is occupied with Strawberry and Raspberry



GROUNDS UNIMPROVED—SCALE 200 FEET TO 1 INCH.

plants. A neighbor's yard is shown at A, and B indicates the foundry yard that has been mentioned, and C, the yard of another neighbor. Two short lines at the right, or south end, of the front line mark the entrance to the driveway to the barn.

As the surface of the ground is on two grades, the rear being lower than the front, the lower ground, in passing from the house to the barn, is reached by a flight of steps, shown somewhat obscurely in the engraving. A broad ravine runs along the rear on the south side and east end, and another one starts some distance in front of the house and runs to the river in a northerly direction. The distance from the street to the ravine in the rear is something over four hundred feet. The front line is one hundred and twenty-two feet long, and where the house stands it is about two hundred feet wide.

In the larger sketch, the rear ground on the lower grade is not shown. The straight walk is replaced by one with very easy curves, the general direction remaining the same, which is very appropriate, because natural, since the town

lies in a southeasterly direction. The curves of this walk may be produced on the ground in the following manner: first, drive stakes on each side of the entrance to the house, to mark the position and width of the walk there. Now measure south in a direct line with the front of the house three hundred and fifty-two feet, or, having a line of just that length, stretch it out full length in the same direction and fix it to a stake driven into the ground at the end. Returning to the end of the line by the house, carry it outward from the house while it is all the time drawn taut, and at the same time mark with a pointed stick the curve it describes on the ground. Should objects intervene to prevent the sweep of the line, or inequalities of the ground, or other causes prevent its use in this way, then stakes can be driven at short intervals to indicate the course of the line, instead of marking the curve directly on the ground. Thus, having fixed one line of stakes, another line, to mark the opposite side of the walk, can be set by merely measuring the width from those already driven. In this way the lines are to be carried nearly half-way from the house to the street and stopped. Next, marking the width of the walk at the front fence, or street line, the same as at the opposite end, mark the line of the curve from the street towards the house in the same manner as before, by first fixing one end of the line up the street in the direction of the railroad, making the line parallel with the front line of the lot and eight feet distant from it. These lines, like those from the opposite direction, may be carried nearly to the center of the ground. After this the lines from the opposite directions can be joined in such a manner as to show no abruptness of curve; a little care and patience will enable one to do this well, although the first attempt should not prove satisfactory. In the way now described, any curve on paper may be produced enlarged on the ground—all that is necessary is to know the length of the radius by which it is formed. The width adopted for this walk is five feet. It is narrow, but can be actually made as wide as desired. Thinking that the prairie country might afford but little gravel, it is designed to be as narrow as it can be allowed; it ought to be six feet, for appearance, and eight feet would be still better.

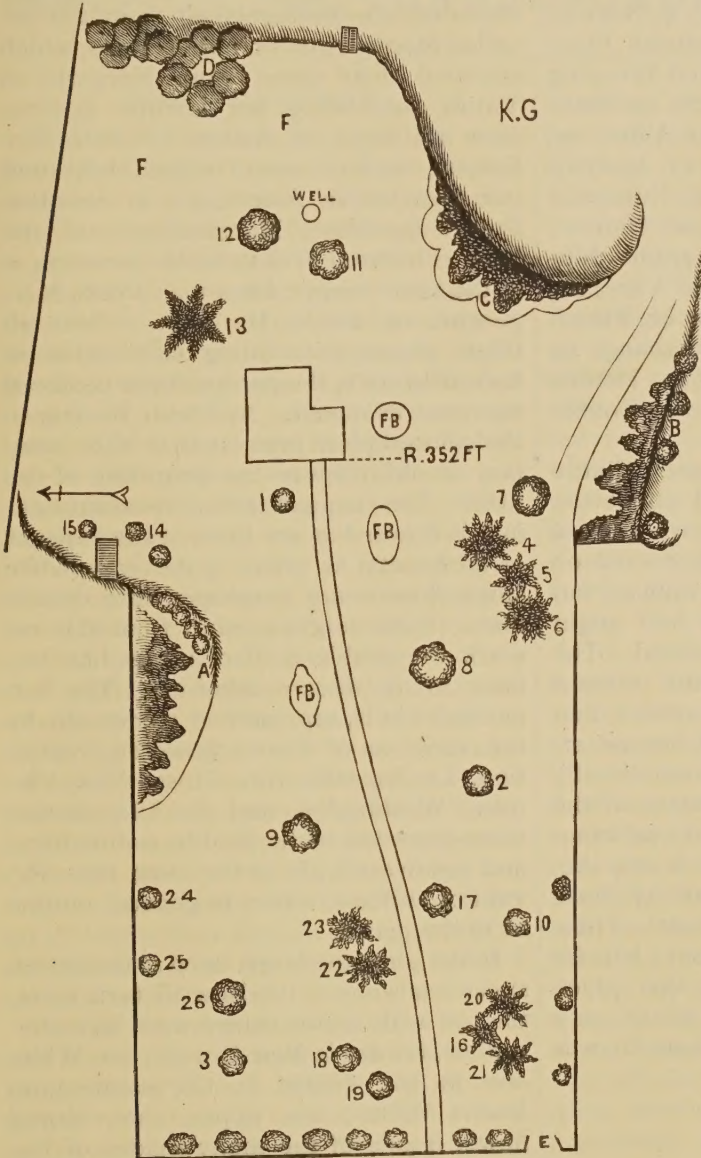


Knowing no more of this place or its owner than is conveyed in the letter quoted, only some changes and improvements that seemed most essential are now proposed. The big gate opening into the street, marked in the small diagram by two short lines, and in the one below by the letter E, remains, with the understanding that there is a driveway running along

which may be used for fruit, and that marked K G, for a kitchen garden. The group of native trees, A, is to be enlarged by planting some of the taller-growing shrubs, such as Amelanchier, Lilac, Tree Honeysuckle, and Mock Orange, with a few smaller-sized ones in front. It is designed they should be so planted that, when grown, they will about cover the

ground, and the contour of that side of the group towards the lawn is to be irregular. In front of this group is to be prepared a rich, mellow bed, where may be kept a variety of those herbaceous perennials without which no garden is complete. Among these may be mentioned for this place, or in front of the group C, *Delphinium formosum*, *Astilbe*, *Anemone Japonica*, *Dicentra spectabilis*, *Sweet William*, *Dodecatheon*, *Day Lily*, *Iris*, *Phlox*, *Pansies*, *Violets* and other sweet things.

The group marked c is to be formed with hardy flowering-shrubs of different kinds, and makes a background for the lawn. The group of native trees at B should remain and be enlarged by planting shrubs in front, or on the north side of it. With the great variety of beautiful shrubs that may be grown in the climate of Lawrence, there need be no scarcity of material or want of variety. It is almost unnecessary to call to mind the *Spiræas*, the *Deutzias*, *Weigelas*, *Eunonymus*, *Forsythia*, *Hydrangea*, *Berberis*, *Snowballs*, *Calycanthus*, *Amor-*



GROUNDS IMPROVED—SCALE 64 FEET TO 1 INCH.

near the south line, making a curve near the group of trees and shrubs, B, and passing by what appears to be a natural descent to the lower level and to the barn. The Strawberry and Raspberry ground is to be cleared and seeded to grass, as it is supposed the rest of the ground is, unless it be that part in the rear, marked F F,

pha, *Azalea*, *Mahonia*, *Thorns*, and many others. The border in front of this group, the front edge of which is marked in the diagram by one side of the driveway, will be found a favorable spot for *Lilies* and *Roses*. This spot of ground, drained by the ravine and shaded a little by the shrubs, should prove very suitable for



Lilies, and especially the Japan species. Pansies and Violets may also find a congenial home here. The trees numbered 4, 5, 6, and 7, cut off the view from the foundry yard.

A few flower beds are marked F B. The trees and shrubs planted singly are numbered as in the following list, the first three being already on the ground: 1, Walnut; 2, Catalpa; 3, Elm; 4, Norway Spruce; 5, Red Cedar; 6, Austrian Pine; 7, Yellow Wood; 8, Cut-leaved Weeping Birch; 9, Purple-leaved Beech; 10, Fern-leaved Beech; 11, Cut-leaved Alder; 12, *Quercus rubra*, or Red Oak; 13, Austrian Pine; 14, *Acer Negundo*; 15, European Ash; 16, Dwarf Pine; 17, Japan Quince; 18, *Magnolia Lennei*; 19, *Magnolia Soulangiana*; 20, *Siberian Arbor Vitæ*; 21, *Hovey's Golden Arbor Vitæ*; 22, *Thuja borealis*; 23, *Juniperus Sabina*; 24, Double Flowering Althea; 25, Double Scarlet-flowering Thorn; 26, Double White-flowering Thorn.

No trees have been removed. Climbing vines should be planted about the house. The view on the north side of the house has been left unobstructed on account of the river and the railway, but a few low shrubs or a flower bed might occupy the ground if so desired. The native plants growing in the ravines should be encouraged, and others that are suitable planted there. A fine assortment of hardy Ferns could undoubtedly be raised there. Of the character of the river margin on the grounds no information is given, but, whatever it may be, it should be clothed with some of those plants that will there thrive best. Thus, at no great expense of money, but far more of care and patience, this place may in a few years show a phase very different and far more pleasant than it now presents.

### THE ASTER.

The China Aster of our youthful days, with its outer rows of ray flowers and its yellow disk, has, within the last three decades, been moulded by the skill of the cultivator into new forms of grace and beauty; and to-day the primitive species and the florists' strain of this flower, if growing side by side in the same garden border and gifted with the power of discernment, would hardly recognize each

other as individuals of the same family. As if their changed appearance did not sufficiently mask their origin, the name of their native country has been dropped, and, with their new costumes, they have also been invested with foreign titles, and thus are known as French or German Asters. The French call them *Reine-Marguerites*, or Queen Margarets, and thus they are distinguished from the so-called *Marguerites*, or Wild Daisies, which received their name from Margaret of Valois, they being her favorite flowers. Now all sorts of Asters, or Aster-like flowers, such as the Ox-eye Daisy and our own native Asters, are, in common French parlance, *Marguerites*, and the little cultivated Daisy, *Bellis perennis*, is in the same tongue known as *Petite Marguerite*, or Little Margaret. Over all these plants, resembling each other in their wild state, the garden Aster is placed supreme, as queen. And who, turning to the colored plate presented in this number, would dispute the propriety of the title? The change that has been wrought in this flower has not been at the expense of its beauty, as often is the case when single flowers are developed into double ones. Some might exempt from this remark the double quilled Asters, but they have many sincere admirers. The flat-petaled kinds, represented principally by the varieties of *Pæony*-flowered Perfection, *La Superbe*, *New Rose*, *New Victoria*, *Washington*, and the *Chrysanthemum*-flowered, while double, symmetrical and imbricated, are at the same time devoid of stiffness, either in general outline or in the petals.

In the plate the large, deep rose-colored specimen is one of the *New Victoria* sorts; the one with white center and lavender, or lilac, border is *New Crown*; the White one in the center is *Chrysanthemum Dwarf White*; the upper, rose-colored flower is one of the many shades of *Imbrique Pompon*; the peculiarly-marked variety at the left is one of *Truffaut's Perfection*, but is not a fair specimen of this beautiful variety—it comes occasionally from seeds of other varieties.

Aster seed, if sown early in the house, or frame, will give plants which, after one or two shiftings, are strong and well-rooted by the time they can be safely planted out; but good plants can, also, be raised by sowing seed on a warm, sheltered border.





### WILD GARDENS.

There are many kinds of gardens, and, from the carefully planned flower-garden, with neat borders and well-filled beds, down to the little patch under the Plum trees, in which some little child-heart rejoices, each has some grace or beauty peculiar to itself. How many, however, know the charms of a thoroughly wild garden, consisting only of a many-shaded surface, of banks of plummy Ferns, great bunches of wild grasses, flowers, and delicate woodland beauties mingled with native shrubs and clinging, graceful, vines? Easily made, more easily cared for, and with a charming sense of freedom and freshness, one wonders that they are not more common. In quiet, country places, around pleasant old farm-houses, or in the sheltered nooks in small villages, where, owing to the shade of trees or adjoining buildings, there is not sunshine enough for garden favorites to grow and flourish, there are many spots that nothing could so beautify as one of these gardens. Only one do I know of in a village, but that one is so perfect in its kind that I can do no better than describe it as a practical illustration of the matter to which I would draw attention.

It is on the north side of a stone house, and above it is a terrace some five feet in height, for it is on a hillside, and is still further sheltered by a row of trees that the owner of the adjacent lot has planted above the terrace. After it was decided to make a wild garden of this shaded spot, the slope was thoroughly spaded and enriched, and, mindful of the needs of wild-plant life, several loads of mold from the woods were mixed with the soil. A screen between the garden and the street was made of cedar stakes seven feet high, each stake being made of a young tree, with bark and shortened

branches left on. These stakes were only two feet apart, and close to each roots of Virginia Creeper and common white Clematis were planted. A screen at the back of the garden differed only in the wild Grape and Hop vines taking the place of Clematis and Virginia Creeper. An irregularly-sloping bank was thrown up against the stone work of the terrace, and the whole surface thickly planted with wild flowers, native Ferns, grasses from the river-side, and a few shrubs. The one walk leading to a rustic seat in the upper corner was covered with tan bark, the soft brown contrasting well with the many shades of green around it. It curved gently in the center, to give place of honor to a beautiful specimen of Black Alder, then passed through a miniature forest of Maiden Hair Ferns. The principal feature in this garden was, and is, the beautiful collection of Ferns, though, in their season, bright Trilliums sent up their blossoms, Solomon's Seal slowly unrolled itself among the Fern fronds, delicate Wood Sorrel peeped here and there, Partridge Vines followed their own sweet will, and in the shadiest corner Ground Hemlock deepened and darkened its scarlet berries. The entrance was through a space left open in the screen, and no more beautifully draped gateway was ever devised. Long ago the vines entirely covered their supports and took possession of everything within reach, from the trees on one side to the eaves of the stone house on the other side. They have concealed the stone terrace altogether, and have crept in and out among the Ferns till the owner's only care now is not to allow them entire possession. Can you imagine this garden in the glowing heat of an August afternoon?

Another pleasing specimen of wild-gardening is at the lower end of a wide



lawn through which a tiny river runs, completely cutting off one corner—a corner which had been left to its own devices for many a year until the present occupant took possession. The old stone wall surrounding it has been covered with vines, the one big Elm half encircled by a rustic seat, and the remaining surface covered with native shrubs, Ferns, and flowers. The river is bordered with blue Forget-me-nots, spread from over-plus roots thrown there years ago, and is spanned by a rustic bridge. In the spring, yellow Cowslips gleam brightly under a sheltering willow, and on the bank above May Flowers, Dog's-tooth Violets, Hepaticas, Trilliums, and Squirrel Corn are mingled with the Ferns. In due season, blue and white Iris nestle beside the bridge, Rushes stand stiff and straight, a bunch of Cat-tail Flags mount guard over them, wild Columbines in the background display their graceful flowers, *Lilium Canadense* sends up its bell-hung stalk, and— But why continue the list? I will only say that this garden is never more beautiful than in autumn, when the great tufts of Golden Rod and Wild Asters shine from a background of shaded Black-berry leaves, Wax-berries cluster pure and white among them, and the faint, sweet breath of wild everlastings is in the air. I am aware that few places possess so great natural advantages for this work as the one now described; but, after all, in such cases,

"There is no best in kind, but in degree."

I have seen a little garden in the corner of an old orchard, where two children, girls of nine and eleven, had collected for their "very own," flowers and Ferns from the fields and woods around them, that, in its way, was quite beautiful. In that garden were seen from time to time, May Flowers, blue Violets, delicate blossoms of the June-berry, the slender stems and whorls of pointed leaves of the Indian Cucumber, blue-eyed grass and white Shell-flowers, yellow Lady's Slipper, the brilliant blossoms of the Cardinal Flower and glossy-leaved Gold-thread, besides a perfect wealth of dark green Ferns and waving grasses.

Of course, in making a wild garden, as in everything else, due regard must be had to "eternal fitness." Like a rockery, its place is not in the center of a lawn, nor in the most conspicuous part of the

grounds as seen from the front door; and art must only be used to conceal her own handiwork, and nature allowed full liberty to do her best. Vines should, if possible, form the background, either alone or in conjunction with shrubs and trees. One of the prettiest trees for the purpose is the Tamarac; it adapts itself so well to the added grace of a wild Grapevine, covering its stem and winding in and out among its branches. A Cedar, with half its beauties concealed, and yet enhanced, by clinging festoons of Virginia Creeper is a worthy rival of the Tamarac, especially after the frost king's hand has been laid upon the encircling vines; and a Mountain Ash wreathed with Clematis is not to be despised.

When preparing the soil it is imperative that it shall be both rich and light, and, when removing plants and shrubs, especially from low, moist places, plenty of earth must be moved with the roots, and due attention paid to watering, until they have adapted themselves to their altered circumstances.

In this article I have not mentioned one-half the beauties that can be gathered together in northern New England, where nature is not considered to be over prodigal in her gifts, but enough has been said to show some of the possibilities of this form of gardening. Further south, where winds are softer, skies milder, and frost and snow not chief rulers, what might not be accomplished? If any one interested in the subject would make a list of the shrubs, Ferns and flowers in his own neighborhood, be it north, south, east, or west, suitable for a wild garden, he would be surprised at its length and promise.—C. M. ARNOLD.

#### THE BIRD-FOOT VIOLET.

The Bird-foot Violet, *Viola pedata*, is the largest and most conspicuous of our native Violets. Unlike most of the species, it grows in sandy soil and likes dry, sunny places. It is really a flower of the woods, growing on their edges, in sandy roads, and on hillsides in the vicinity of woods. It is always associated in my mind with the White Birch, for it is in full blossom at about the time when these trees have just come out in their bright, straight-veined, taper-pointed leaves, and wherever I have found them there were always Birches close by, or springing up

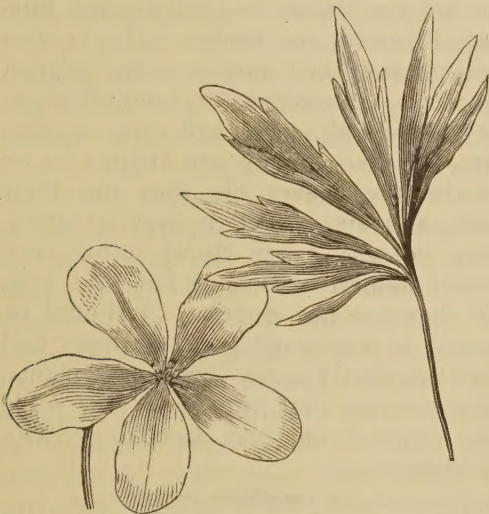


among them. In the large flowers, which are about an inch broad, there is a charming variety, both in form and color. In some the petals are broad, in others they are narrow, and the color varies from



VIOLA PEDATA.

deep purple and blue to pale lavender, even to white. I once found two or three clusters with light and dark pink flowers, and in the same place with these there were many with a reddish tint. On the hill where these grew, a crop of grain had been raised the previous year, and it was delightful to see how luxuriantly the Birds-foot Violets were growing and profiting by the increased richness of the soil. The whole hilltop was covered with great tufts of them with unusually large leaves and flowers, and very long leaf and



LEAF AND FLOWER—NATURAL SIZE.

flower stalks. The pink variety I transplanted to the garden, where it has grown and retained the pink color of the flowers, blossoming at intervals all through the season. The purple ones, which I have cultivated, make a beautiful mass of

color in the garden, the flowers growing close together. Nature always gives to each flower a leaf of just the right shape and shade of green that its color and characteristics need, and the Bird-foot Violet has been favored with a very pretty, delicate one, palmately divided and cut, and suggesting a bird's foot in its form. It is one of the stemless Violets, the leaf and flower stalks all arising from the short, thick root-stalk. There is an occasional variety (var. bicolor,) which GRAY describes as "very handsome, with the two upper petals deep violet and, as it were, velvety, like a Pansy." Under cultivation, who can tell what new attractions this wild flower might develop. —R. B. W., *East Windsor Hill, Conn.*

#### THE MESQUIT BEAN.

MR. JAMES VICK:—I find, in looking over the volume of your MAGAZINE for 1881, two articles in reference to the Mesquit Bean. Having spent some time in Southern California and in Arizona, where the Mesquit is quite common, perhaps some of my observations may be of interest to your readers.

In many parts of Arizona, and on the Colorado desert, this tree, called Mesquit, is almost the only form of arborescent vegetation. Under the general term of Mesquit, several distinct species of trees are included. The one referred to by A. K., of Toronto, at page 202 of volume iv, is the true Screw Bean, *Stromboscarpus pubescens*. The seeds of this species are veritable screws, and are very abundant in good seasons. The pods of another species, *Prosopis juliflora*, also called Mesquit, are long and flat, curving up in the shape of a sickle, more or less, when ripe. Still a third species, called at Tucson "cat's claws," from the sharpness of the thorns and the fact of their being almost hidden by the leaves, is the *Acacia Greggii*. The pods of this are also long and flat and curved up when ripe. The species referred to by Mrs. M. C. A., on page 298, volume iv, is probably the second of these species, and there is no reason why it should be called Screw Bean.

Now, the first two species are, I am sure, eaten by stock when nothing else can be had, and I am told that horses and mules will grow fat on the diet. The



beans of all kinds are eaten by the Indians, after having been pounded into a sort of flour, and it is said to be capable of keeping the life in the body, even if the food is not of the most nourishing character.

Along the line of the Southern Pacific Railroad, near a station called Indio, on the borders of the Colorado desert, heavy patches of the *Prosopis juliflora* are found. And there is what might be called a small forest for fourteen miles along the track. The wood is extremely hard and tough, and makes excellent fire wood. A band of Indians live along here, and they occupy their time in cutting the Mesquit and selling it to the railroad. Again, on the banks of the Colorado river, at Yuma, there are great numbers of the trees, some of them growing to a large size, and forming a veritable forest on the bank of the stream. At Tucson the most common species is the *Acacia Greggii*, the cat's claw Mesquit. This does not grow so large as the *Prosopis juliflora*, but still forms a good-sized tree for that country.

In regard to the poisonous quality of the beans I can give no information. I only know that they are eaten, and I hardly think that they would be if they were generally considered to be poisonous.—JOS. F. JAMES, *Cincinnati, O.*

#### ◆ ◆ ◆ FUSSY PLANTS.

Roses are among the most ungrateful plants that a plebian can try to grow. They are natural aristocrats, and the greenhouse is the place for which they pine with homesick longing.

You may buy of Vick himself the most tempting, highly eulogized plant in his list—"vigorous grower, free bloomer"—possessed of perfections for which you long. The mail brings it to you, fresh-looking and fair. You have read the directions about soil—"old, well-rotted" sod, with manure (same adjectives) and sand, equal parts each. You have it all ready. Then the pot must be small. Yes, everything is right. You put the Rose in the pot, and set it in the shade, water it once, and wait. You continue to wait. The tenderest shoots hang their heads and refuse to be comforted. In about a week you put that Rose in the sunshine. In another week you cut off the tender branch. In about a month you tote it to another window. It still sulks.

Then you take it to another room. Still it won't be pacified. Finally, in despair, you wash it daily with soap-suds, and rinse with clear water, (you needn't boil it), and dig around it and put ammonia water and manure water on the earth. Wait upon it, coax it, pet it, and if in six months you get one blossom, it is to be presumed you will think you've earned it.

The one evident object in buying Roses is to cultivate the first-class virtues. You show "faith" in buying one, cultivate "hope" in keeping it, and you will need all the "charity" you can muster to keep from pitching it out doors.

Then, another plant the florists do tell awful stories about is the Japanese Fern. They say it grows twenty feet in a season, and is a fine house-plant. Well, perhaps it is—a greenhouse plant. I bought one. I went to the woods and pulled up innocent little Ferns that were just doing their best, and took home the dirt they grew in, and set that foreign plant in it. How it did grow, to be sure! I do believe it grew a half-inch in one year! One of my acquaintances, for whom almost every other plant flourished and bloomed magnificently, had one; hers, I think, grew an inch in a year! I have a *Pteris Fern*, *serrulata* or *tremula*, I think, that does finely.

I would like to mention a few plants that are not "fussy"—Quack-grass, Burdock, Pigweed, and Pusley. The coldest winters never kill them, nor the hottest summers. Cut-worms don't molest them, nor caterpillars. They will grow in clay, loam, or sand. They are subject to no disease; they never die, they nor their seeds, and every seed is sure to grow. They possess every floral virtue, and several human ones, and not one vice. Still they are not popular. I should be pleased to exchange seed of these and other "perfectly hardy" perennial plants, "blossom first year from seed," for some with which I am less familiar.—ANNA WOODRUFF.

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CELERY PLANTS.—I find that when I sow Celery seed in the hot-bed, I can have far better plants by transplanting twice before the final setting. The roots are more numerous, the plants stocky, and they lift with a ball of earth. I am very careful to have a bed of rich, mellow soil.—S. C. W.



## MEXICO AND ITS VEGETATION.

JAMES VICK:—Last winter I sent your valuable MAGAZINE a short account of the Bermuda Islands and their charming drives, beautiful bays and inlets for boating, and lovely flowers. This winter I find myself in quite a different locality,—much more tropical, the latitude being about 19°, and although the fresh and invigorating breezes of the Atlantic and the well-made roads of Bermuda are wanting, still the beautiful country, with its luxuriant tropical vegetation and magnificent mountain scenery, make it a very agreeable place in which to pass the winter and escape the rigor of our northern climate.

Colima is the capital of a small state of the same name, and is about thirty-five miles from the Pacific coast in a direct line, although fully sixty miles by road to its port, Manzanillo. It has an elevation of sixteen hundred feet above the sea, which materially tempers the summer heat of the coast, and at this season the temperature is usually very agreeable, light woolen being as much worn as linen.

A low range of mountains intervenes between the coast and the plain of Colima, broken by the narrow valley of a river, which affords a narrow pathway for the railway I am engaged in constructing. In a northerly direction, and twenty-five or thirty miles distant, is the volcano of Colima, a grand feature of the landscape, towering to the height of twelve or thirteen thousand feet, and forming a magnificent background to many a beautiful vista through suburban lanes lined with Palms and Bananas. The cloud-effects around the volcano, the ever varying sunset tints and the clouds of vaporous smoke which burst forth from several craters at frequent intervals during the day, make it so attractive that we never tire of watching it in our morning and evening rides and drives. One evening the eruption occurred at the right moment for the masses of white vapor to catch the glowing sunset hues; another time a stratum of clouds with a sharply defined edge obliterated entirely the summit of the cone, and probably acted as a reflector of the sun's rays, as, for a few minutes, a broad, blood-red band of very uniform width extended across the volcano from side to side underneath the cloudy curtain.

Most of the roads hereabouts are execrable for wheeled vehicles; but with a good horse one can go almost anywhere, and the lanes and by-paths in the early morning or dewy evening, when the oppressive heat of mid-day is over, furnish us with numerous enjoyable *paseos* on horseback.

We have within a range of sixty or sixty-five miles, therefore, a changing vegetation from the Palms, Cotton, and Sugarcane of the coast region to the Oaks, Pines, etc., of the flanks of the volcano. Although I have traveled considerably in the tropical countries of America, there is much very new to me in the vegetation, and especially in the flowers of the country. It is now the rainless season (January), and the wild flowers are not so abundant as they were two or three months ago, still we are constantly running across new and singular varieties, many very beautiful and worth cultivating. Our physician, who is also quite interested in botanical studies, scarcely ever returns from his trip over the adjacent part of the line without bringing to my wife some new flower, or singular pod, or other fruit. A short time ago certain trees were full of the deep-red bloom of a true parasite, resembling somewhat the Honeysuckle in the shape of the flower, and, being in large masses of color, was quite striking. It needed a rather close examination on cutting off a branch to decide which twigs belonged to the tree and which were interlopers, the latter presenting very much the appearance of grafted shoots. More recently the racemes of pretty pink flowers of one species of Orchid have been quite abundant towards the coast. The skirts of the volcano are famous for its variety of beautiful Orchids, which are in bloom about March. I found a very beautiful one in flower, during one of my trips up the country, in the Beltian *Baranca* (a deep, precipitous ravine), on the flank of the volcano. We have several varieties from the volcano hung around the rooms and walls of our house, but I am afraid we do not understand their treatment well enough to obtain much bloom from them.

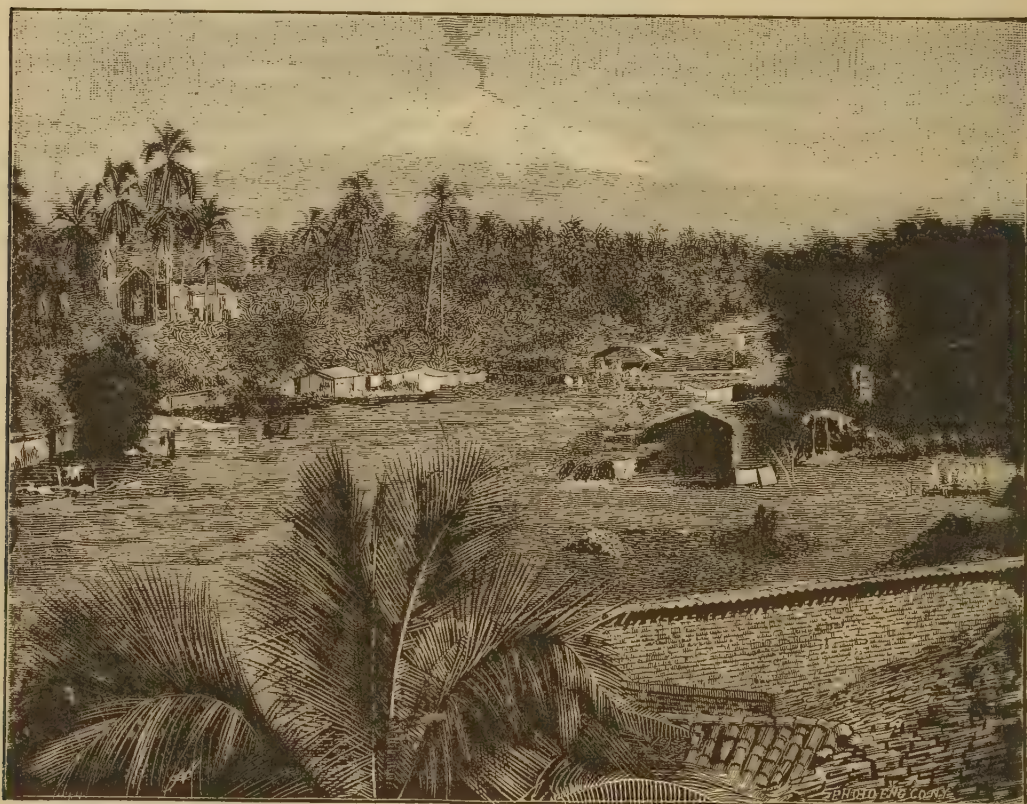
We have on our center-table a little plant brought from the base of the volcano, which I presume is a club moss of the genus *Selaginella*; it is like the Resurrection Plant sold in New York, which I have



supposed came from Palestine. Is the latter also a club moss, or is it the Rose of Jericho, *Anastatica Hierochuntica*? After being gathered the leaves curl up and turn brown, but expand again and become once more a bright green if put in a saucer of water. Another interesting object on the same table is the large seed of an Avocado Pear, *Persea gratissima*, which we have suspended at the top of a tumbler of water, and which in a short

and there with the bright little crimson flowers of the Cypress Vine. A species of *Convolvulus*, with a bright scarlet flower, similar in shape and but little larger than the flower of the Cypress Vine, is commonly found also; and still another species, with a bright blue flower, of the same small size.

Vines bearing pea-shaped blossoms of great diversity of bright colors, and some of very curious form, are met with in



time has pretty well filled the tumbler with roots, and sent up three shoots with numbers of leaves, one of them some nineteen inches high.

In the *barrancas* near the volcano is found a beautiful flowering grass which, though not so large, rivals the Pampas Grass in the beauty of its stalks of flowers. In the bottom of the large and deep *barranca* of the Tuxpan some of the meadows at the commencement of the rainy season, when the grass is very short, are fairly clothed with flowers, which, from descriptions given me, must be, I think, wild Crocuses. I have in a visit to the same *barranca* seen the tall grass, at the close of the rainy season, quite covered with *Convolvulus* in bloom, dotted here

abundance on the roadsides; the species are very numerous, and are generally quite unknown to me. Another vine, called the Canistita, or Little Basket, (*Aristolochia guaco*?) is quite peculiar from its seed-pod, when the seeds have dropped out, looking like a little basket suspended from the stalk of the plant by three or four filaments; the flower is small, bearing some resemblance to the Dutchman's Pipe.

One very singular flower, which it is hard to place without a work on tropical botany, (I am expecting GREISBACH'S *Flora of the West Indies* soon), grows in long racemes, with very showy, folded and heart-shaped purplish-red bracts, from each of which protrudes a long,



tubular flower of a little deeper tint. The Manto de la virgen, Virgin's Mantle, is a vine belonging to the Polygonum family, with large, loose racemes of very pretty deep-pink flowers, with the trian-



ROSE OF JERICOH CLOSED.

gularity of the Buckwheat, but minus the sheathing stipules. Poinsettias are very common, as are, likewise, varieties of the Passion Vine.

Many large trees have singular and beautiful flowers, frequently when they are leafless. The Primavera has large, bell-shaped, yellow flowers. The Clavelina has a very showy flower, especially the red-colored variety; its mass of stamens, nearly five inches in length, form a large tassel of a deep shade of pink, and constitute the beauty of the flower, as the petals are insignificant; in another variety the stamens are white. Another tree, the Cacanagual, has beautiful close ra-



ROSE OF JERICOH OPEN.

cemes of pinkish leguminous flowers springing directly from the branches; the flowers are pea-shaped, pale pink, the standard with a greenish-yellow stripe, and are slightly fragrant. One tree bears a seed very peculiar, from its having two

parallel wings, about three inches in length, so attached that if the seed is thrown up in the air it will fall slowly to the ground, spinning rapidly as it goes.

Prickly Pears grow as large as good-sized Apple trees, and the Organ Cactus also grows into a large tree, with a single trunk and numerous parallel and vertical branches, a fine specimen being quite a striking object; both bear edible fruit.

The Convolvulaceæ and Legumiosæ are especially abundant here, being in great variety; the Acacias are quite troublesome near the coast, their thorns when least vicious having a disagreeable habit of quietly lifting off one's hat as he rides beneath, and dropping it on the open ground behind him.

Turning from wild to "tame" plants, the public plaza in front of our house is surrounded with Orange trees, and very gay with plants and flowers such as are



RESURRECTION PLANT.

ordinarily met with at home, among which are some very fine variegated-leaved Allocacias of large size. A novelty to me is the Almond tree (not the true Almond, but the Terminalia catappa), which grows in a series of stages, branches starting from the same point in the trunk and spreading out into a flat disk, followed by a piece of bare trunk and another flat disk of branches, and so on. I have bought several large plants for the *patio* of our house, among which are two varieties of Hedychium, some four or five feet high above the pot, with their beautiful, satiny petals and deliciously fragrant flowers; a Clitoria, a vine with very rich, double, blue flowers, seeding freely, which I wonder is not more grown at home; a fine, large Crinum Paxtonii, and some varieties of Tydæa, the T. Hustonii being very large and handsome.



The Gardenia, or Cape Jasmine, blooms very freely here, its large, double, white and deliciously fragrant flowers being quite a favorite of mine. The ordinary Jasmine I have seen growing in a court yard, with a stalk two or three inches in diameter and fourteen or sixteen feet high, and spreading on the flat roof into a mass of foliage and bloom several feet in length.

Some of the flowers common with us at home have quite fanciful Spanish names. For example, Caladium, white spotted, Lagrimas de la virgen (Virgin's tears); Caladium, red center, Corazon de Cristo (Christ's heart); Cypress Vine, Suspiro de monja (Sigh of a nun); Drummond's Phlox, Sourisa (Smile); Euphorbia, Corona de Cristo (Crown of Christ); Lantana, Siete colores (Seven colors); Chrysanthemum, Bella Luisa (Beautiful Louisa); other names are Angels Wings, Wings of a Bird, Sigh of an Archangel, etc.

The animals and fruits of the country, the people and their dress and customs, would give plenty of material for a long magazine article, but foreign to the purposes of your interesting little monthly, and taking up too much of its valuable space.—J. F. FLAGG, *Colima, Mexico*.

The Resurrection Plant most commonly sold in New York is *Selaginella lepidophylla*, and, as it is brought from California, it is probably procured in Mexico, and is very likely the same plant our correspondent describes above. The Rose of Jericho, or *Anastatica Hierochuntica*, is quite different, being a cruciferous plant.

#### WHAT TO DO IN DRY WEATHER.

MR. VICK:—I made some notes in the garden after the drought, last year, that I have thought might be worth a place in your columns. I will copy from my note book:

November 1st. I am continually surprised by the blooming of plants that, during the drought, looked like dry sticks, and that I had supposed were quite dead. The Sweet Peas and Nasturtiums are a daily marvel; they had ceased blooming and I thought them dead, but they are full of blossoms, and so with the Petunias and others. I am quite confident it was mulching with earth that saved them, for some of them were not watered at all after the first week or two, but they were all heavily mulched several times with soil from the kitchen garden. The Chrysanthemums were pinched back as late as

June, and were watered very thoroughly before mulching, and they are in full bloom and beauty.

I find that earth is the very best mulch; I used to cover with grass, hay and leaves, but these grew mouldy and harbored worms, slugs, and all sorts of pests, besides keeping the dew from the roots of the plants. I cannot discover that I have lost a single plant by the drought, excepting some seedling Pansies in boxes; they stood quite thick and damped off. If I had transplanted them I believe they would have lived, but I feared to move them in dry weather and so lost them. The old plants in the northern border survived and are a mass of bloom. But they had careful treatment, were watered every day, and pinched back, and dug about, and talked to, and encouraged in every way. Yes; I always talk to my Pansies, and they seem to like it, and thrive abundantly, so that folks wonder at my success with them.

I shall never be frightened at dry weather again, for I shall know just what to do. I made a regular business, early every morning, of watering and mulching. Some things must have water, others will do with very little, and the most valuable plants must be cared for first. Where the garden is large and water scarce, mulching will save plants that otherwise would perish; besides, it is a permanent benefit to the beds, as it gives fresh soil and food. Of course, none but good soil should be used. Leaf-mold is excellent, but not always at hand, but the kitchen garden is never far away, and the wood-house is close by; chip-dirt is very good, and so is charcoal refuse.

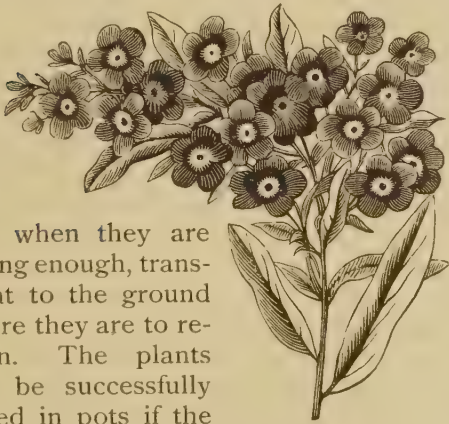
I am so pleased with the behaviour of several modest little flowers that I must make honorable mention of them; they are Lobelia, Sanvitalia, Virginian Stocks, Viscaria, and Sweet Alyssum. They are all blooming away as if it were the beginning of the season, instead of the end; they are excellent for cutting and work up well with the Chrysanthemums. Although it is "drear November," I have plenty of flowers to give and to keep. The pretty little Portulacca was a comfort all through the drought; indeed, it never bloomed so freely for me before, and I shall always cherish a more tender feeling for it, as I remember how brightly it grew when its companions were fading



and fainting all about it; it was like a true friend in adversity. The flowers growing under trees, too, bloomed quite well, while others of the same kind dried up, so that shade is very desirable in dry weather. We may learn useful lessons from even so great an evil as drought.—E. A. M., *Alleghany Co., Pa.*

### THE FORGET-ME-NOT.

The different varieties of Forget-me-not are very delicate and particularly desirable for small bouquets, and as they are not difficult to cultivate, if their peculiar requirements are satisfied, it is well to have a few plants in some shady, moist nook. In such a place they will require very little attention, and will bloom profusely. The plants are easily raised from seed, which may be sown in a hot-bed, the cold-frame, or in the border in early spring. Keep the plants well supplied with water and protect them from the full force of the sun by a light, thin shade,



and when they are strong enough, transplant to the ground where they are to remain. The plants can be successfully raised in pots if the proper attention is given to watering and shading. A cold-frame facing the north, with shaded glass and free ventilation, or the sash thrown up, is a good place for them during summer. The pots can be sunk in the ground, which should be light and porous to allow quick drainage, for stagnant water must not be allowed about the roots, although they delight in moisture. The sentiment associated with this plant pertains to the blue or white and blue varieties, and especially to *Myosotis palustris*. *M. alpestris* has white flowers, and a variety of it, those that are rose-colored. *M. azorica* is dark blue and very fine; a variety of *azorica*, called *cœlestina*, has sky-blue flowers that are produced in great profusion. Each kind is interesting and beautiful.—W. H. Y.

### COUNTRY SCHOOL HOUSES.

MR. JAMES VICK:—Your remarks in the current year's *FLORAL GUIDE*, relating to beautifying school houses and their surroundings, meets with my hearty endorsement. From my earliest recollections, when forced to undergo a quasi martyrdom day after day, in a forlorn, weather-beaten school house, standing on a side-hill overlooking a bramble-covered, goblin-suggestive grave-yard, and a nearer-by frog-pond, I have had a horror of these dreary abodes. I call them *abodes*, as the major part of the waking hours of children are passed within their cheerless walls, embellished with cob-webs, fly-specks, paper-wads, outline draughts and pencil sketches of incipient artists. The want of consideration for the health, comfort, and cultivation of the finer feelings of children in the location, construction, furnishing and surroundings of ninety-nine out of every hundred school houses throughout the United States, calls for the severest criticism upon those whose duty it is to supervise and direct in such matters. So universal is this neglect, or culpability, that "as pleasant and neat as a country school house" has become an ironical by-word, a synonym of all that is uncanny, dirty and disagreeable. Would it not be wiser, as well as more profitable, for school boards and directors to pay more attention to this subject and less to the selection of books, and dictation as to controlling pupils.

Of what benefit are lessons from carefully selected text books (costing millions in the aggregate,) and the instruction of qualified and competent teachers, provided children are without evidences of truth? Faith is for maturer minds, but tangible, visible realization is required for unsophisticated childhood. Let us use, therefore, those means which most readily accomplish the ends we desire. Encourage in all ways and by all means a love of the beautiful, which embodies virtue and grace, and, ultimately, perfection.—G. C. P., *Danville, Ill.*

AN EARLY SPRING.—On the fourth day of March I found Skunk Cabbage, *Symplocarpus foetidus*, in bloom near the southern limits of the city line. This is an early start. Many low forms of vegetation were found at the same time to be pushing rapidly.—S., *Monroe Co., N. Y.*



### GROWING CELERY.

MR. VICK:—F. W., of Zionsville, Indiana, asks for light on this subject. I am of the opinion that the culture, in one latitude, is not always the best for another, and, also, the treatment should vary according to the amount of moisture in the ground; for instance, if the earth is very dry and the sun hot, it will not do in this climate to earth it up, as it will certainly injure, if not destroy it. It should be borne in mind that it is a plant requiring a great deal of moisture. If you have a low, rich plot, and good strong plants to start with, a reasonable crop can be raised any season, but, in our blazing southern sun, on ordinary rolling land, years of experience has taught the writer that it is exceedingly difficult to grow, even by watering, as nothing short of a regular soaking, and that quite often, will save it. If you have a pretty high fence on the south side of your garden, where there is plenty of shade, one good row can be raised there, and one row one hundred and fifty feet long will be enough for a small family through the winter. My success has been altogether on rich, marshy ground, where the water barely ran off the surface after a rain. I never earth it up only so much as will aid in keeping it clear of grass and weeds, as earthing too much checks the growth of the top. After the first frost, it is taken up with a pronged hoe and stored away in the cellar for blanching and use. My plan is this: I make long boxes, say six or more feet, to suit the size of room; they should be six inches broad and as deep as the cellar is high. I place the boxes in the cellar and put two inches of soil in the bottom of the boxes, then, after trimming off the bruised stems, pack the plants in the boxes, straightening up each one. The plants should be put in close enough to support each other, and thereby keep the stems upright; the roots should have a little earth left on them. After each box is filled I give it a good watering. It will blanch in a short time and will not heat, and is always convenient for use. In the absence of a cellar, the boxes may be placed in an out-house and protected from freezing by a light covering of dry straw.

The long time required to germinate Celery seed, and the exceedingly delicate nature of the young plant, is one of the

greatest troubles growers have. For a small garden convenient to plant-growers it will be as well to get good, strong plants from them, otherwise have some boxes three inches deep, fill with light, rich soil, press it down, smooth with a piece of board, spread on the seeds, but do not cover, sprinkle them thoroughly, cover the boxes with glass, set them in a sunny place, and the plants will soon be up; when three inches high, prick them out and pinch off the top, setting them in a garden bed, where they should grow until six inches high, and then, after a good rain, set out in rows three feet apart and six inches in the row for cultivation. —A. H. B., *Brownsville, Tenn.*

### CUCUMBERS FOR THE SOUTH.

MR. VICK:—If not out of place in a floral magazine, I would be glad to recommend to my southern friends who interest themselves in gardening, some of the foreign kinds of Cucumber. Having tested the merits of the Chinese Long Green and Giant of Arnstadt varieties in Georgia I can speak knowingly of them. The first mentioned was tested in no respect differently from the common varieties, but produced abundantly fruit nearly, if not quite twice, as long as that of the common Long Green Cucumber. I do not think that, for the table, the long kinds are so delicate in flavor as are the Early White Spine and some other varieties, but for pickling they are certainly very fine, if gathered before they are too old, having such length when quite seedless. In regard to Giant of Arnstadt, I must say that, having tried the kind during but one season, and that a most unfavorable one, I am aware that I cannot promise to do it full justice. I bought one package of seed, and was a little disappointed in finding in it so small a number—barely five. I had five hills prepared, however, in the usual way for Cucumbers, and one seed placed in each hill. Soon four plants came up and made thrifty young vines. They had just begun bearing the most beautiful fruit I ever saw—long and well-shaped—when the weather became very dry and hot. I had intended to pay extra attention to those vines, by having them watered daily if the weather should become unusually dry, but sickness prevented any thought of



garden or vegetables. Meanwhile, the dry time continued, and when, after several weeks of drought, I was able to inspect my garden, I was amazed at the appearance of those four Cucumber vines. All my other Cucumber vines were gone, not only parched by the hot sun, but every leaf even carried away by the winds after being burned up. Yet the Giant of Arnstadt was looking almost as well as when last viewed. With the exception of a very few yellow leaves the vines were looking well. Of course they did not produce so large a quantity of fruit as they would have done during a more favorable season, but I was convinced by the one trial that the variety would suit this climate admirably. I think I ought to say that the four vines mentioned were watered but twice.—E. B. H., *White Plains, Ga.*

#### LANDSCAPE ART.

Modern landscape gardening is the concentration of arboreal and pastoral beauty. It is natural scenery produced by nature's material transferred to home grounds by the landscape gardener, upon much the same principles, and for reasons similar to those which lead artists to transfer in pigment their lines and shades to canvas—that they may be enjoyed when the ministering angel of relaxation hovers at home. The aspect of these bijou effects may be culled from the whole vegetable kingdom. The scene may glow with color, or it may be sombre; it may be soft, elegant, lovely, and beautiful, or bold, rugged, and startling, as suits the genius of the situation and the wealth and taste of its proprietor. The gradual development of these tastes for the beautiful in nature has been due in great measure, it seems to me, to the spread of economic agriculture, the invariable tendency of which is to destroy them, and banish them. This may seem paradoxical, but admitting that agriculture destroys natural scenery and also brings in its train civilization, a minute division of labor, a residence in towns for the convenience of handling its products, and manufacturing its accessories—that it thus results in sameness and monotony of existence,—then, these combined influences would instinctively cause a yearning for freedom of body, repose of mind, the gratification of the senses, a craving, in short, for re-

laxation and pleasure. The close application necessary on the part of the merchant naturally leads him to seek his pleasure in scenes the very antipodes of his office. We thus see that such nations as led in commerce and agriculture, both of which to a great extent destroy natural scenes, were the very people who first led in their artificial reproduction. The Chinese did so in Asia from times as remote as the knowledge of their written characters. England, among the European nations, was the first to thoroughly espouse the naturally beautiful in home-grounds, and confine the straight, ancient, geometrical line to the terrace, the avenue, the kitchen garden, and the farm. To the English, with their progressive civilization, is due the credit of having reduced the materials and composition of modern garden scenery to the status of an exact science. Other countries have followed in her wake, but none have as yet been more successful in producing the naturally chaste and beautiful in their home grounds.—JAMES MAC PHERSON, *New York.*

#### CACTI AND CONSERVATORY.

MR. VICK:—For the benefit of those who wish to grow Cactus plants in their living-rooms, I would suggest that the new growth must be thoroughly ripened after flowering, else there will be no blossoms the next year. To do this they should have the sun as hot as possible, and plenty of it, with only a moderate quantity of water. A garret window, or a window in a shed, where they have fresh air, is a good place for them. They absorb moisture from the atmosphere, and it is very good treatment to lay them on one side, out of doors, in a rain. When cold weather approaches, store them in some warm closet, or dry cellar, and let them rest. Sprinkle the leaves now and then, to remove dust, but give no water in the pots until the little, prickly balls, or buds, in the edges of the leaves begin to grow and look fresh. Then give a good soaking, in warm water, and place them in a sunny window, and water as any other growing plant.

If the soil is good, fertilizers are not needed, and are apt to stimulate the plants to throw out too many buds. It is better to pick off a part, if many buds appear, and thus get larger flowers.—S.



## MY AMARYLLIS.

So many articles have been written or contributed on the treatment of Amaryllis that the subject seems pretty nearly exhausted, but the success which has attended my treatment of the subject of the enclosed picture, prompts me to lay it before your readers, with the assurance that they might do worse than follow it.

I received the bulb, a mere seedling, four years ago among other favors from friend HUFTELEN, of Le Roy, and it has bloomed every January since; this year throwing up two flower-stalks for the first time. You will observe that in its present stage the foliage is just so far developed as to make a graceful base for the flower-



stalks, and after the last flowers have begun to wilt, I cut off the stalks and continue to foster the foliage, which continues for a long time to be graceful enough for a house-plant. By-and-by the leaves will be over a yard in length, and rather ungainly, but by that time it will be safe to bed out plants, and I then turn it out of the pot into a comparatively shady corner of the garden, covering the bulb to the neck, and leave it to its own sweet will and nature's nursing. In September I take it up, and repot it in fresh, rich soil, and gradually ripen it off. If it is obstinate, I cut the foliage off entirely and lay the pot away in a mild, dry corner of the

house, giving it three month's rest. The first drop of water seems sufficient to start it, and by the time the leaves are about four inches long the buds appear with the regularity of clock-work. I am persuaded that, by shortening up the seasons of growth and rest, it would bloom more frequently, but it would be at the expense of impaired vitality, and for frequent bloom it is better to have a succession of bulbs than to ride a willing horse to death.

The specimen is *A. Johnsonii*, or so closely allied to it as to be practically the same, and the treatment I have described answers with all of that class. The picture does not do the plant justice, as, while waiting for a favorable day, some of the heads began to wilt, and two buds, it will be seen, had not expanded. It has furnished bloom for over six weeks, and the last flowers are still in the zenith of their beauty. There may be other and better modes of treatment, but I can speak from long personal experience that the one I have described has been wonderful in its results, which I ascribe to the nursing of the bulb through soil and foliage during summer, and the preparatory season of rest before setting it again to work.—R. CALVERT, *La Crosse, Wis.*

## LESSON'S FROM NATURE.

Sweet lessons from the skies,  
And from the earth, we see in stars and flowers;  
The Violet looks not with jealous eyes  
On buds in leafy towers.

Not envious of the Rose,  
That burns with fragrant fire in bushes sweet;  
Is the fair Daisy in its calm repose,  
In shadows at its feet.

Tall as the masts of ships,  
The peaceful trees, within the shady wood,  
Whisper soft syllables, with leafy lips,  
A happy brotherhood.

The Ash nods to the Oak,  
The Elm bows to the plumed and towering Pine,  
And scars, made by the lurid lightning stroke,  
Are bandaged by the vine.

The birds that sweetly sing,  
From notes of flowers, in nature's open book,  
Heed not the style, nor color of the wing  
Of dove or sable rook.

We hear the feathered choir  
In the vast orchestra of forests green;  
No discord in their hearts provokes the ire  
Of choristers serene.

Fraternity and love  
Are written clear in characters of light,  
And starry syllables of gold, above,  
When God uncurtains night.

—GEORGE M. BUNGAY, *Brooklyn.*





### A PLANT COLLECTOR IN JAPAN.

A traveler in Japan, C. MARIES, who is collecting rare plants in that country, writes to *The Garden* something of his experience there. A few extracts only and condensed statements are here given. Describing Sapporo, in the island of Yeno, he says: "All sorts of English garden flowers were planted in the little gardens in front of the houses down the first street or road of the town. The government have formed vineyards, hop-gardens, a school of agriculture under a practical farmer and three professors from America. They have also a practical gardener, who has done good work in planting their orchards and making a fine garden: Apples, Pears, and Cherries appear to grow splendidly here. There is also a brewery and a silk factory."

Going to one of the highest points of the mountain, a short distance from town, he found there "*Abies yessensis*, or *ajasiensis*, a fine Spruce Fir, and, in a wild state, a far handsomer tree than *Abies polita*. I saw, also, a magnificent forest of *Abies sachalinensis*, some of which must have been near two hundred feet high and eight feet in diameter. *Cephalotaxus* formed a dense undergrowth, covered with bunches of Damson-like fruit. A few examples of *Pinus parviflora* were also met with on the tops of the hills. *Daphniphyllum glaucescens* was an undershrub, growing along with *Rhododendrons*, *Andromedas*, *Vacciniums*, *Acer vitifolium*, *A. japonicum*, *A. rufinerve*, and another species of *Acer* said to have white flowers. The Japanese call it the 'White-flowered Tree.' I also found here a splendid *Carpinus*, with bunches of seed four inches to five inches long, and *Cercidophyllum japonicum*. These were the finest of the forest trees; I ought not to forget the fine *Aralia Maximovii*. The

two trees just named are the giants of the Yeno forest.

"The most beautiful climber is *Schizophragma hydrangeoides*. This does always best on a living tree with a long, branchless trunk, and requires to be old before it produces flowers. I have seen trees perfect masses of large *Hydrangea*-like blossoms. They can be seen on the mountains several miles off when in bloom. Another fine climber is *Actinidia Kolomikta*, with its long, trailing branches covered with silvery-white leaves, called by the Japanese 'Cat's medicine,' and I find that cats in England are extremely fond of it. There is another *Actinidia* with edible fruit, which, about October, I found very good in flavor—something like a large green gooseberry.

"I made an interesting discovery on the top of a mountain near Sapporo one day. Rambling amongst the rocks, I was struck by the agreeable scent of Violets, and not finding any, I happened to notice masses of Ferns in the cracks of the rocks, and found them to be *Aspidium fragrans*, an old favorite Fern from North America, and deliciously scented when wet with dew."

Of his fare while in the mountains, he writes that he "always had plenty of fungi; some from the Birch (*Betula alba*), tasted like mutton; others from Oak trees; the celebrated Mats taki from the Fir trees (we had venison steak always with this); another fungus, like masses of deer-horns, was excellent in Japanese soup." He mentions what the Japanese call "*Dycoon*," a kind of long, white Radish, four feet long.

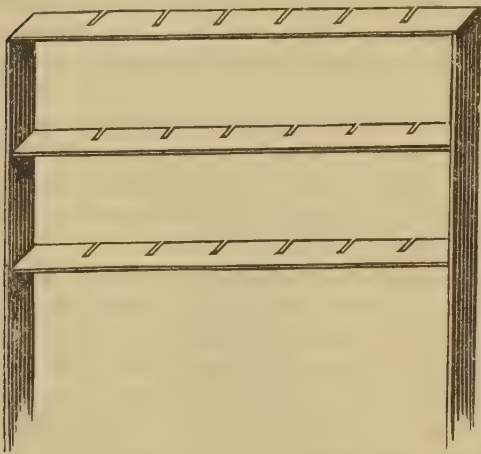
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SUGAR BEETS.—Last year the average yield of sugar from Beets in Germany was one per cent. higher than the year before—such is the effect of a warm season.



### PROPAGATION OF CLEMATIS.

The method of layering in pots illustrated in our last issue, page 84, has been employed by E. CLAUSEN, professor in the Imperial School at Nikita, in the Crimea, for the propagation of *Clematis Jackmannii*, and of which he gives an account in the *Revue Horticole*. It consisted, in a few words, in providing some little wooden shelves and fixing them near the wall upon which the *Clematis* was trained. The shelves supported pots of soil through which the young shoots were passed as they grew, and into which they sent roots. To explain more fully, the shelves, three in number and arranged about sixteen inches apart, one above the other, were about four inches wide and six feet long, and were supported at their extremities by stakes driven into the ground. Each shelf had six slits cut into



it, reaching to half the width and opening towards the wall. The appearance of the whole will be perceived by reference to the accompanying illustration. Allowing the professor to tell the story, "When the young shoots had extended a little past the first shelf I passed a branch into each slit; then I took a flower-pot made of cow-dung mixed with sand and peat, and in it made a slit or opening large enough to pass a branch of the plant, which I cut in the usual manner of layering, and the pot was then filled with soil and covered with moss. As the branches increased sufficiently in length they were again passed into the pots above them, and cut and treated in the manner already described. As to the care, it consisted in watering the plants as they had need, and in pinching back the side-buds so as to

concentrate the sap as much as possible in the pots where the roots were to be developed. Thus treated my *Clematis Jackmannii* gave me, in October last, some well-rooted young plants."

It is evident any part of a vine may be employed for propagation in this manner while the rest of it remains as usually attached to the wall or trellis.

### COAL OIL FOR INSECTS.

A very clever writer in a late issue of the *Journal of Horticulture* gives an account of the successful use of petroleum in destroying insects in graperies after the fruit has been taken off. He recommends the mixture of an ounce of the oil to a gallon of water, stating that he has "never found any injurious effects from it when used at this strength and kept properly mixed, unless it was on the tenderest of Ferns, or when it was used several times in quick succession and no precaution had been taken to shade the plants from the sun." For fruit trees he uses the oil in the proportion of one ounce and a half to a gallon of water with good results.

### LARGE-ROOTED PARSLEY.

This vegetable, known to the trade as *Hamburgh Parsley*, is cultivated in this country only by Germans. The *Revue Horticole* says it is a plant little known in France, but from time immemorial has been in use in Germany and Russia. The editor has recently eaten it and certifies that it is a very good vegetable. "There are really two varieties of it; one with roots very long (about twenty inches), the other with roots relatively short and a little thicker." Although we freely admit the good taste (gout) of our German friends, it does no harm to have so good testimony as the above in its favor.

**VARIETY OF NATIVE ASTER.**—Among the notices of plant novelties in a late number of the *Florist and Pomologist* is that of a new variety, produced under cultivation, of one of our native *Asters*, bearing the name, *Aster Novæ Angliæ pulchellus*. It is said to be "a very fine variety, quite distinct from the ordinary form, and far handsomer; grows about four feet high, the flowers of a pale magenta."





## PROGRESSIVE SCHOOL TEACHER.

MR. JAMES VICK:—As spring draws near we begin to think of the green grass and flowers, but to secure these we must first get the seed, so that brings us to you.

Now, Mr. VICK, if you will be indulgent with me, I wish to tell you a little country school history of a remarkable kind, which I wish to end by asking a favor of you. Last fall I was asked to take charge of a certain school property in this county. The school house being new, comfortable, and well furnished, I consented to accept the invitation, instead of teaching in Minnesota as I had formerly done. \* \* \*

Suffice it to say, I am now teacher of an orderly and industrious school, which will close in two weeks. Now we have a fine building, lovely natural surroundings, and, excepting the yard, the finest country school property I have ever seen. To the south we have a grand view of a meandering stream (La Crosse river,) and two railways. To the southwest stretches a long ridge terminating in an abrupt cliff, at the foot of which flows the river. On this point Black Hawk intrenched his braves, and an embankment two or three feet high still remains, from which we have dug some curious Indian relics, pottery, arrow-heads, &c.

Well, now to the object of this long letter. One of the disadvantages of our country school system is the lack of concert of action, and this affects decoration as disastrously as it does anything else. Many teachers would do all they could to improve the looks of school grounds, but his successor may be indifferent, or may act on a plan of his own, and thus nothing harmonious is reached, usually nothing at all, and country school grounds are the most desolate of all places. Now, if a person of admitted taste in decoration were employed to give us a plan for a certain school grounds, this plan to be kept in the school house, and each teacher do what he could to perfect the same, a valuable impression might be made on the pupils, and tasteful grounds take the place of those now so unsightly.

My school grounds might be made the pleasantest in the State with a little money, a willing teacher, and an interested school. The same boys who broke down shade trees and acted terribly last year, worked with a will with their teacher moving wood piles, raking and clearing, during the recent fine weather, and showed as much interest in improving the looks of things as they formerly did in disfiguring and destroying, and forty willing hands have made an appreciable difference in the appearance of our school yard.

Your answer to this will be anxiously looked for by my scholars, as I told them of my intention of writing to you about it, and it greatly stimulated them

in the good work. If a plot of the ground is needed, I will do all I can to get a photograph, or describe the same after hearing from you as to the probable cost.—L. B. J., *West Salem, Wis.*

We are happy to respond to this letter, and hope the suggestions now offered may be even more helpful than if our services were given exactly as desired. It will be better for teacher and better for pupils to make a design for the school grounds than to have a furnished plan. Besides, there are many school grounds in the country that need improving, and we hope it will not be long before there shall be a grand awakening to this subject, and the school houses and their surrounding grounds will be among the most pleasant and beautiful objects in the landscape, as now they are usually the ugliest.

If a few leading ideas are kept in mind the work of improving school grounds may be engaged in by amateurs, that is, by those really interested in it, so as to conform to good taste, at least so as not to offend it. But we shall expect really valuable results to follow the execution of a course of work such as here proposed.

The ground immediately about the school house should be considered as ornamental ground, and the play grounds should be just beyond it. This condition of things in most cases does not now exist, but we may hope it will—in the meantime let the work of embellishing the little ground and the little house go on. Most school grounds do not probably exceed an area of one hundred by two hundred feet.

First. Such a plot of ground should be mainly in grass. A good, smooth, even-surfaced turf is the foundation of all improvements.

Secondly. There should be just those walks that are needed and no more. The



main walk, or that from the street to the house, should be of a generous breadth, eight or ten feet.

Thirdly. Walks should be made to pass from one place to another by the most direct course; if any object should be in the direct course, the walk can bend and pass one side of it.

Fourthly. A few trees for shade and for their beauty, may be planted in different places, avoiding setting them in straight lines, but placing them as if they might have come up of themselves naturally. In fixing the places of trees, be careful not to obstruct the pleasantest views, and, if possible, make them screens for something you may wish to hide. Some of the handsomest flowering shrubs can be planted singly, or in groups, and they should be selected so as to have more or less of them blooming during the spring, summer and autumn.

Fifthly. A few beds should be made for the free-blooming, beautiful annuals and bedding plants, and be so situated as to add to the appearance of the grounds from the street, and, if possible, to be easily seen from the windows.

Sixthly. Some place should be provided for a collection of hardy herbaceous plants, and in it should be gathered, not only those most commonly cultivated, but as many as possible of the prettiest of the native plants. This border may be at the side or the rear, or it may be in front of groups of shrubbery that occupy the margins of the grounds.

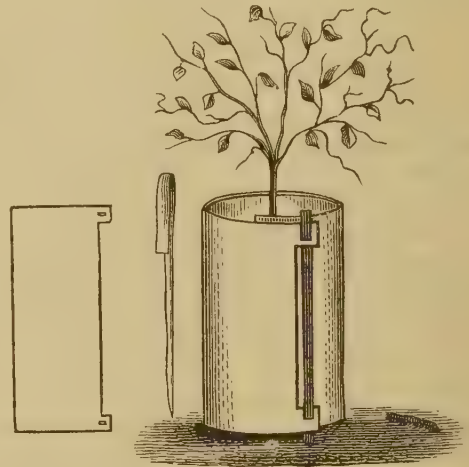
Now, to state in a few words how the design is to be made, let us suppose a place of the size already mentioned, that is, one hundred by two hundred feet. The teacher should make a diagram on the blackboard of the exact form of the ground, taking a scale, for instance, of four or eight feet to one inch; if the former the diagram will be twenty-five inches wide and fifty inches long, or each line will be respectively one-half these lengths on a scale of eight feet to one inch. Next place the outline of the school house in its proper place, and also locate any trees or other objects that may be on the ground; then mark the place of walks, and suggest different ways of running them, if possible, and mark the places of a few trees. By this time the older pupils will have caught the idea and will want to make sketches. They should be encour-

aged to do so, but it should be insisted upon that their drawings should be made on paper and to a scale. Give an hour once a week, or once in two weeks, for general consultation and comparing the sketches and suggesting improvements, and talking about desirable plants and trees; let it take one term to arrange the whole, bringing to the aid of the school the catalogues of some of the best florists and nurserymen. When the different sketches are ready, perhaps there may be interest enough to bring together the older members of the community to examine them, and a committee may decide which one to adopt.

If the plan so formed should not be the best one possible, it probably would be of the greatest advantage to the pupils to be so made, and would arouse the most interest in the enterprise.

#### PLANT PROTECTOR.

By the specimen protector which I send, you will understand how I say (and stick to it) to Mr. Cutworm, "You can't have my early plants." I send it thinking the idea might be useful to you or some of your readers.—J. S. K., *Wisconsin*.



The "protector" consists of a piece of card-board, or stiff paper, cut in the shape shown in the illustration, with a hole at each end on one side. Through these holes a piece cut out of tin passes, its lower end sticking into the ground, while the upper end is bent over, holding the card-board together like a tube as it surrounds the little plant. The size of the card-board was two and a quarter inches one way and three and three-quarter inches the other; but, of course, the size may be varied as may seem most convenient.

## UNTHRIFTY PLANTS.

MR. VICK:—I take your *MAGAZINE* and like it very much. Will you please answer the following questions in the next number: I have a *Lasiandra macrantha floribunda*, the leaves of which turn yellow and fall off. It does not blossom at all, and looks as if it was going to die. What kind of treatment does it require?

I have *Eranthemum laxiflorum* and *E. Andersonii*. Both look well, but do not blossom; *Laurestinus* looks well and does not blossom, and *Tabernaemontana Camassa* has some blossoms. It buds freely, but most of them fall off. Please tell me what kind of treatment these plants need. Will they not thrive in the house? Do they require large or small pots?—Miss E. E. W., *Hubbardston, Mass.*

The first four plants mentioned require mostly a cool and moderately moist air, while the last one needs warmth and moisture, and the conditions of the room where they are now kept are probably not agreeable to any of them. We all understand how unsuited, generally, are the rooms of dwellings to most plants, and, therefore, we prize the few that will thrive in them; and for others we enclose windows, build conservatories, green-houses and stoves. Those who attempt, outside of a limited range, the cultivation of plants in the window, must not be surprised by failure. As soon as the weather will permit, it will be best to turn all these plants into the open ground for the summer, to be lifted again in autumn. In the meantime, if it is intended to continue their cultivation, there should be prepared for them at least an enclosed window, such as has been often described and illustrated in our pages—glass doors shutting off the window-space from the room, whereby the temperature and moisture of the air about the window may be regulated independently from that of the room.

## SMILAX IN THE OPEN GROUND.

MR. VICK:—Can *Smilax*, *Myrsiphyllum asparioides*, be cultivated successfully out of doors in summer, and, if so, under what conditions? I am a great admirer of this graceful vine, and, as I have no greenhouse or other house-convenience for growing it in winter, would like, if possible, to have it in summer. One gardener informed me that it did not succeed well out of doors—grew rank. Exactly what he meant by this I did not learn.—SUBSCRIBER, *Baltimore, Md.*

We have never cultivated *Smilax* in the open ground. If any one can give information on the subject from experience it will be welcomed. Probably with partial or light shade, in a sheltered place, with proper attention to moisture, it might be satisfactorily raised.

## PÆONIES AND ANEMONES.

JAMES VICK:—Will you allow one of your subscribers to submit to you some of her difficulties? Three or four years ago—I have not the exact date—I procured some roots of Chinese *Pæonies*, pink and white. They were planted in a slightly shaded, well-drained bed, and have grown to a good size, but have never borne a single flower. Other perennials bloom freely.

There are few flowers which I prefer to the *Anemone Japonica alba*. You say of it that it is "perfectly hardy, and increases rapidly from a small plant to a conspicuous clump." I have twice set out plants in the early spring. They grew well and flowered abundantly in the autumn, but in neither case was there the slightest trace of them the next spring. If, in the *MAGAZINE*, you can give me a hint as to the probable cause of these failures, I shall be greatly obliged, and encouraged to try again.—D. R. E., *Boston, Mass.*

Sometimes *Pæonies* will not flower for several years after removal, and this is more general with some varieties than with others. Some of the best sorts often take a long time to bloom.

We have grown *Anemones* in large quantities for many years, and have never known one to be injured in the winter.

## LAVENDER.

JAMES VICK:—I wish that in your *MAGAZINE* you would give some suggestions in the culture of *Lavender*. I have no difficulty in raising young plants from seed, but they do not blossom the first season, and during the following winter they winter-kill. By keeping the young plants in the house through the winter I have succeeded in getting blossoms the second year; but is there no easier method of carrying the plant through the winter?—J. A. A., *Greenfield, Mass.*

The *Lavender* plants may be protected for the winter by drawing the soil up around them and covering them with leaves. Or they may be raised in a cold-frame and there protected with a layer of leaves between the plants and a few leaves scattered over them, and then the sash placed on; further protection may be given, if necessary, with mats placed on the sash. When the sun shines brightly, and in pleasant weather, give air.

BLOTTER VS. FLANNEL.—In starting delicate flower seeds, in order to secure the essential moisture, I find blotting paper very effectual—cutting the sheets to fit the pots or boxes, covering with the paper, and applying the water on the outside. I had seen flannel cloth recommended, but the thought struck me that the material in question would be cheaper and equally retentive, if not more so, and repeated trials have convinced me in the matter.—W. H. H. D., *Greenville, Pa.*



### FLOWERS FOR THE SCHOOLS.

An increasing interest is unmistakably arising throughout the country in regard to the appearance of the school houses and school grounds. In order to assist in the good work, we now offer a collection of twelve varieties of seeds of the most desirable, showy, and free-blooming annuals to each of the five schools of each county in every State in the country that shall first apply for them. The only conditions on which these seeds are offered are, that they shall be cultivated on the school grounds, and that by the first of next November a report shall be made to us by letter of the result of the summer's work in the school grounds.

It is desirable that the children should be enlisted in the work, and in most cases this will not be a difficult task. Teachers and pupils can make the care of the garden a pleasure and a pastime, and they will find it, also, a source of health and instruction.

Application for the seeds may be made to us by teachers, trustees, directors, or any interested persons who will engage to execute the design of our offer. Those wishing to avail themselves of the seeds should write for them without delay; and thus, by acting promptly, there will be time in most parts of the country to secure well-established plants before the hottest summer weather sets in. The present offer does not take the place or rescind that which has been open for several years—we refer to the privilege of procuring seeds to the amount of five dollars at half price. Those who wish more than the collection of twelve varieties, or who should apply too late to be entitled to them, can avail themselves of our old standing offer.

### JAMES AND ISABELLA SPRUNT.

MR. VICK:—The Tea Rose, Isabella Sprunt, is an old friend of mine. I had the pleasure of residing in the family of Mr. JAMES SPRUNT, in Kenānsville, N. C., during a summer's sojourn in that pleasant little village, when I was fresh from boarding school, and his daughter, Isabella, for whom the Rose was named, was a favorite friend of mine. I watched very anxiously the first Isabella Rose as it opened—before you ever saw it, I suppose. Mr. SPRUNT had a very dark Rose named for himself. Perhaps you have it.—MRS. C. C. P., JR., *Elizabeth City, N. C.*

The last Rose here referred to is James Sprunt, a velvety crimson Bourbon, that was introduced to the public in 1856. Isabella Sprunt was brought out in 1866.

### PERSIAN INSECT POWDER.

It will be well to make a very general trial this season in the cultivation of the species of *Pyrethrum*, from the flowers of which is made the well-known Persian Insect Powder. The powder is made by drying the flowers and afterwards pulverizing them. The use of this substance would probably be greatly extended if it should be found that every one could raise and prepare his own supply. The species most employed for the powder are *P. cinerariæfolium* and *P. roseum*. The seed is small and should have careful treatment by sowing it in pans, pots, or boxes of light soil, in the house, hot-bed, or cold-frame. Prick out the young plants as soon as large enough, and when the weather is fine and settled transplant to a rich spot in the garden. If seed is to be sown in the open ground, have a bed prepared light and mellow, in a well-drained, warm spot.

### LILIUM CANDIDUM.

I should like my Iowa friend, who fails with the common white Lily, to know of my success with it. I live forty miles north of the Iowa State line, in Minnesota, that land of blizzards. It seems to me the Lily will grow in Iowa if it will here. In the spring of 1880 you sent me a bulb of *Lilium candidum*, and as it came early and the frost was not out of the ground so that it could be planted, I put it into a box, and there it began to grow; when I made my garden I planted it out, but as it did not grow much in the fall, I transplanted it to a better place. Last summer, after an absence of ten days, I arrived home at night, and my husband said I must go into the garden, although it was dark, and see the new flower. We took a light and went out, and there found five splendid white Lily blooms on one stock; they remained in bloom for two weeks. Last fall I found five bulbs where the plant stood the first summer; so, you see, it not only grew and blossomed, but multiplied.—L. E. R., *Alma City, Minn.*

CHINESE PRIMROSE.—Chinese Primrose seed sown this month will give plants that will follow in succession of blooming those that have already been started. Another sowing can be made next month, and will come in for the latter part of winter.

**TRUMPET VINE—GERANIUMS.**

MR. JAMES VICK:—The Trumpet Vine, *Bignonia radicans*, which I purchased two years ago came through the last winter in good condition. We gave it the same treatment that we do our Grapevines, and that seemed to be all the care it needed. I hope to have some fine flowers on it this summer if it comes out as well this spring as last.

I last year raised about thirty Geraniums from seed of my own raising. I planted the seed in a pot in the house in April. They grew into very fine, strong plants, and about a dozen of them came into bloom in September, and the rest this winter. They bloom more profusely and have finer clusters of flowers than plants grown from slips. They are of every shade, from dark red to white; one plant has flowers very much like the new one you have pictured in your last MAGAZINE, *Blonde Beauty*. I think it much the best way to get Geraniums for winter-blooming. The place I have for them may have been part of the reason for their doing so well. We have a large window, almost a room, built out from the southeast corner of the sitting-room, which has seven large sashes, and storm-windows outside, so that the sunshine comes through as hot as summer.—MRS. H. W. M., *Rapidan, Minn.*

**PANSIES.**

I bought some wonderful foreign Pansy seed last year (by the way, I never knew any foreign seed or plant to do well until it had been naturalized,) and had some very common little blossoms. My opposite neighbor bought some of VICK's seeds, and such beautiful great blossoms as she had were simply aggravating. People write about their modesty, but I didn't see any modesty about these; every time I went over there they would stick up their heads and try to show off in a manner that, under the circumstances, looked very boastful. When I went down one walk looking for a choice Carnation, there would sit a big-faced, light-complexioned Pansy. If I turned into another, behold a perfect African for blackness! In fact, it didn't make much difference which way one went, blue, black, purple, yellow, white, and mixed Pansies were in every corner, and no end to them. They just blossomed and blossomed all sum-

mer long, and I couldn't help feeling the conviction that they spent a good deal of time looking over this way triumphantly.—A. W.

**A READER'S EXPERIENCE.**

MR. VICK:—As I have a few leisure moments to dispose of this morning, I shall employ part of the time in writing to you. I would like to tell you how fond I am of your MAGAZINE; every number tells me something I particularly wish to know. I read "May Mackenzie's" letter this month (January) with great pleasure. The skeleton bay-window covered with vines has quite captivated me. I have just such a south window, and also without blinds, and, thanks to her, shall make a green bower of it this summer.

I agree with "Ellen" about the beauty of Marigolds. I had a bed six feet long and three feet wide, and I thought them beautiful, and they and the Zinnias were the last flowers to succumb to the frost. I ought to have excepted the Snapdragon; that was full of bloom and buds when the first freeze came, and they were frozen hard, and after that a warm spell came and the buds came out on a good many of the bushes and bloomed nicely. I had about thirty plants, all from one paper of mixed seed, and they were lovely.

I had a row of Cayenne Pepper in my garden last summer, and just before frost the plants were full of bloom and tiny Peppers, so I took a plant up carefully and potted it, brought it into the house, and now it is quite a curiosity, full of green and ripe Peppers.—MRS. A. B., *Lottsburgh, Va.*

**THE MIGRATORY QUAIL.**

Efforts have been made for four or five years to introduce the common Quail of Europe, *Coturnix communis*, into this country, and several importations of them have been made for this purpose. In June, 1880, twenty-six hundred of these birds were brought over and liberated in Maine, some in almost every part of the State. As these birds are migratory, it was thought that, if they returned to Maine the next spring, it would be a good test of their successful naturalization. They have been reported from various parts of the State as having returned last year and reared their young.



## EVENING.

"Gently, zephyr, fan me gently,"  
Sighed the Rosebud red and sweet.  
"Ah! the bliss that comes with evening,  
After scorching noonday's heat."

"Gently, dewdrops, fall and moisten,"  
Whispered Violet from her nook;  
"Thirsty are my leaves and petals,  
Longing for my native brook."

"Shine bright moon and beam upon us;  
Mild and cooling seem thy rays."  
Thus did Lily, slender, graceful,  
Evening's goddess love to praise.

Lovingly the zephyr flitted,  
Softly, gently fell the dew,  
While the moon moved on serenely  
Through her field of darkest blue.

Then the blossoms, grateful, loving,  
Lacking voice in song to raise,  
Sent forth richest, sweetest odors—  
Incense to their maker's praise.

—SYDNEY EMMET.

## NATIVE COLORADO PLANTS.

A son who is engaged in mining and reducing operations in Southwest Colorado, was telling us of the great beauty, neatness, and elegance of some of the Alpine plants on the mountains there of nine to ten thousand feet of altitude. He described a crimson-flowered *Primula*, handsomer than the handsomest in our eastern culture, in flower all summer, and especially bright up to July. He says that the *Edelweiss* was abundant near a coal-mine which he owns in part, and which is at a high altitude above the Dolores river. "I think," said I, "that Mr. Vick has given us some account of these pretty things," and, sure enough, on turning to your pages, 16 and 23 of the January number, there they were. A creeping *Phlox* in the way of *Phlox subulata*, was another admired little beauty, wearing all sorts of colors in turn; and a *Gilia*, which he declared finer than any we have, and which he would recur to again and again, so, evidently, its beauty had made a deep impression. Another charming plant, annual, or at least herbaceous, forming a bush from three or four inches to a foot in height, with Juniper-like foliage, and *Bouvardia*-like white flowers, he could not assign to any relationship or botanical place, but found it one of the freest bloomers and showiest of plants. Something among the heaths, possibly, if they are not all shrubby. Besides these things pleasant to the eye,

they found plants good for food—*Celery* in wild abundance, or what they could not distinguish from *Celery*, and which served to give zest and finish to many a meal.—W.

## SEED SOWING.

FRIEND VICK:—A few words at this season on the hackneyed subject of seed-sowing may not come amiss. I have been trying HENDERSON'S plan of covering with sifted sphagnum. I find with the sphagnum obtainable here, that after one or two waterings it forms a felt quite impervious to fine seeds. I have, therefore, returned to my old plan, which is not to cover the seeds at all, as follows: sow in boxes, as usual, water well, and put away in a warm place, covered with two or three thicknesses of old blanket; keep these moist until sprouted well, then water and cover with soil through a fine sifter, and, if not in too dry a place, every seed will come without further watering to pack the soil. For very hard-shelled seeds the best plan is to take the seeds in a pair of fine pliers, and, with a very sharp knife, shave off a corner until the outer shell is pierced, being careful not to break the inner skin; in this way *Cannas*, *Clanthus*, etc., will come up in a week with certainty.

A few pots (five-inch) of *Gladiolus* and *Tigridia*, which escaped the thieves last year, were put away under the benches. I noticed them sprouting the first week in January. On examination I found from three to six good, sound bulbs of the former in each pot making good roots; they are now separated into five-inch pots and, I expect, will bloom in a month or six weeks. The *Tigridias*, on the contrary, had split up into bulblets, and not one large enough to flower among them.—W. R. W., *Norfolk, Va.*

LILIUM AURATUM.—The article on the *Auratum* Lily in the February number is interesting and in some respects valuable, but my experience is that the great and all-important point is a deep, sandy, and thoroughly dry soil, not only for *auratum* but many other Lilies. I have seen the *auratum* grow like a weed in a dry, sandy soil in the garden of a friend, in a cold section on top of the Alleganias, at an altitude of about three thousand feet.—S. J. M., *Grantsville, Md.*

## VINERY NOT A CONSERVATORY.

I have a little greenhouse, opening from our winter sitting-room, which warms it sufficiently from its self-feeding anthracite heater in all but severe weather, or extra cold, long nights, when a supplementary fire is lighted under a raised part of the shelving of the greenhouse, or often a coal-oil burner is lighted, which is set in an old boiler containing dry sand or ashes to absorb oil in case of accident, and covered (to prevent the light from alarming outsiders, and also to prevent drip falling on the lamp) with a sheet-iron tray, elevated enough for free air passage. This is a steadier and surer heat-generator than the stove. But almost every winter some sudden snap of cold occurs that nips or kills, or, at best, disfigures some of the plants. I have resolved before now, while feeling all the chagrin of such a vexatious blow, to take in no more plants than the windows, the cellar, and a glass and shutter covered cold-frame out-of-doors will safely accommodate. But when one begins to take in plants, as frost threatens their winsome beauty in September, it is not easy to keep such a resolution. I think I shall manage it hereafter by setting out fewer of the herbaceous greenhouse plants, and depending more on annuals, and on the half-hardy shrubs and roots which one can store in a cellar, and so keep with a minimum of trouble; while, being for the most part less cultivated, they excite more interest. These, with hardy perennials, will make variety enough, and if less of show, will have more of delicacy, of change, and of genuine beauty. The greenhouse has a Hamburg and an Iona Grapevine, and one of Rogers'—a sort too late for out-door culture here, but fine under glass. They will be better off covered over during winter and unexcited by heat. I think I can carry out this programme.—W.

**CHILDREN AT THE FAIRS.**—The Horticultural Society of Portage County, Ohio, has offered a series of premiums for cut-flowers and floral designs to be competed for by children and young people not over seventeen years of age, and all the specimens to be raised by the exhibitors. Would not this be quite as appropriate for our agricultural societies to imitate as to give so much attention as they now do to fast trotting?

## ISOTOMA LONGIFLORA.

This plant, which has lately been introduced into this country for its ornamental flowers, is a native of Jamaica. J. J. Bowrey, a writer on the poisonous plants of Jamaica, thus states what he knows in regard to its poisonous qualities. "A plant called the Horse-burst, or Horse Poison, *Isotoma longiflora*, is believed to be very poisonous, especially to horses, as its name implies, but I have been unable to meet with an authentic case of poisoning by it. It is a pretty little weed, growing only a few inches high, and bearing white, star-like flowers having a very long tube. It specially affects damp, stony places beside rills of running water."

After once collecting a quantity of it, he states that "both myself and some friends who aided me in gathering it, suffered much from soreness of the eyes, which I found was due to their being touched by the hands after handling the plant. The fresh plant gives out an unpleasant acrid odor, which can, without contact of the plant, produce very disagreeable effects on eyes and throat."

## BOTANICAL NAMES.

My friends poke a good deal of fun at my mania for using the botanical names of plants as far as possible, even when they are better known by one that is more common, but my reason is very aptly exemplified in the question of Mrs. E. K., in the January number, and your reply concerning the Cape Gooseberry.

As Mrs. E. K. bought the *Ephiphyllum* grafted, it at once occurred to me that the stock must be the *Pereskia aculeata*, which is commonly used for that purpose, and on looking it up I found that *Pereskia* is sometimes called the Barbadoes Gooseberry; hence the play at cross purposes in the question and answer. Presuming that my surmise is correct, please let me answer the lady that the stock she admires is a native of the West Indies, where it grows to a height of about fifteen feet; that the flowers are white, and that the fruit, which is said to have a pleasant flavor, is used in making preserves in the same manner as the Gooseberry in England, hence the popular name. Of course, in a pot-specimen such results can scarcely be expected, although she may have bloom.—R. CALVERT, *La Crosse, Wis.*



**BUFFALO PEA.**

MR. VICK:—In January number of the MAGAZINE Miss A. E. W., of Dakota, mentions Buffalo Berries as native. From her description, I think she means Buffalo Peas, or Ground Plum, which grows native here on the emigrant trail of the "forty-niners" running four miles north of Crete. It is the *Astragalus caryocarpus*, I think, and delights in a dry, sandy soil. The young pods taste like Asparagus, and are used as a substitute for green Peas in May. By June 10th they are too fibrous to cook, and taste very rank. Providence laid up a store of "greens" for the early "voyagers" and settlers.—DR. H. D., *Crete, Neb.*

MR. VICK:—A correspondent in the January number, Miss A. E. W., Greenwood, D. T., speaks of a plant called Buffalo Berry. I think the same plant grows here and is known as May Pea, or Buffalo Pea. It is a low, herbaceous plant, of the order Legumiosæ, bearing large seed-pods, like small Plums in shape, and changing from a bright green to a reddish brown; in the green state the pods are sometimes cooked and eaten, like Asparagus, and by some they are pickled. The plant is perennial, and is found on high prairies in this vicinity.—MRS. J. J., *Geneva, Neb.*

**DESTROYING CABBAGE WORMS.**

As the information will be valuable, I wish to know if any of your readers have ever tried dusting Cabbage and Cauliflower plants with carbolate of lime to destroy the Cabbage worm, and if it is a successful remedy. It has been recommended as a perfectly sure thing against Cabbage-worms, and Potato-bugs also. Last summer I tried everything I ever heard or read of on my Cabbages, and could not save one. I tried every receipt given in the MAGAZINE, without the slightest success.—S. M. G., *Dixon, Ill.*

A COMFORTING WORD.—Our spicy correspondent, A. W. (or ANNA WOODRUFF), ought to have a comforting word from some one. Cannot some of our readers give their experiences, both with Roses and the Japan Fern, that shall encourage her to try once more, and with such success as shall enable her to take the Rose and the Japan Climbing Fern out of her list of "fussy plants?"

**A CLOTH-COVERED HOT-BED.**

MR. VICK:—Will you permit me to give some thoughts and experience in hot-bed making and covering. I have had a hot-bed for many years. The heating material I use is that which is commonly employed. I do not use glass, but common sheeting for covering, and I have found that my plants come as early and endure transplanting better than those raised under glass. I tack the cloth or covering to the upper side of the frame, the other side of it I tack to a piece of scantling the length of the frame; on this the cloth can be rolled up and down at pleasure, or as need may require to give air. After supplying my own garden, I have sold fifteen dollars worth of plants from a bed five by twelve feet. Two dollars will meet the entire expense of making the bed.—J. R., *Frankfort, Ill.*

**GAS TAR FOR POTATO BUGS.**

Gas-tar water has been found to be quite as efficient in the destruction of Potato-bugs as Paris green or London purple. The manner of using it is stated to be as follows: take a tub of water and place a gallon of the gas-tar in it, stir well, and let the tar settle. The water can now be applied to the plants with a sprinkling can. One gallon of the tar is said to be enough for several acres of Potatoes. It has been found to be sure death to the Currant-worm, and, in fact, is destructive to most insect life.

THE WILD FLOWERS.—A Texas correspondent, J. M. H., at Luling, Caldwell County, writes: "I only wish you could see our wonderful and magnificent show of beautiful wild flowers. No man's pen, however facile, can describe them, they have to be seen; the whole country is covered with bright Phlox, Lupins, &c., and, although we have a propagating house full of Geraniums and other bright flowers, they seem very insignificant when compared with the wild ones."

ANNUALS THIS MONTH.—The following varieties of plants, though they may be started later, will give the best results if not delayed beyond the present month: Dianthus, Canna, Lobelia, Mimulus, Maurandya, Myosotis, Sweet Alyssum, Portulaca, Schizanthus and Dwarf Scabiosa.

## VARIOUS INQUIRIES.

Mrs. M. B. inquires "if all kinds of Ferns can be successfully raised in the house summer and winter, and what special care they need." The house is not a good place for general Fern cultivation, but some kinds will do better than others. A bay-window with glass doors enclosing it from the room, and fitted with light shades to cut off some of the sunlight, might be admirably adapted to Ferns. A few of our native sorts are good house plants, standing the dry atmosphere well. Among these are *Aspidium cristatum*, *A. marginale*, *A. acrostichoides*, and *Pteris cretica*, and *P. longifolia*, from Florida; many of them would flourish in an enclosed window. Of exotic species there are several kinds of *Pteris* that are good, as, also, *Onychium Japonicum*, *Cyrtomium falcatum*, *Doodia aspera*, and *Lygodium scandens*, the Japan Climbing Fern. The requirements of Ferns are very various, and it would be almost impossible to say anything of value in regard to their treatment without taking them up specifically.

M. M. B., Canterbury, Delaware, asks about the culture of *Begonia glaucophylla* and the *Pilea*. *Begonias* require a rich, porous soil, and care must be taken not to give them too much pot-room; commence by potting them in small pots and shift them into a size larger when they need it. They require a temperature of 60° and upwards; when growing they will stand plenty of heat, and should then be freely watered. *Pilea* will thrive under the treatment of ordinary soft-wooded greenhouse plants.

The cultivation of *Stephanotis floribunda* is asked for by several of our readers. It is a good greenhouse climber, and as such a most beautiful ornament, since it produces its pure white flowers in great abundance, and for a long time. The flowers exhale an exquisite perfume, like that of the *Tuberose*. It is a plant that likes the freedom of its roots and should have plenty of pot-room; but it will grow more vigorously if planted out in a bed of rich soil. Attention must be given its support, and the stems either allowed to run up a pillar or trained to a trellis overhead under the glass. When greater room cannot be conveniently allowed to

to it, it can be grown in a large pot provided with a trellis as large as possible. The plant is quite subject to mealy-bug, and when noticed they must not be neglected, but sponged off and the leaves kept scrupulously clean. Frequent spraying of the foliage with clear water is beneficial. Ordinary greenhouse temperature is sufficient for it. It is readily propagated by cuttings.

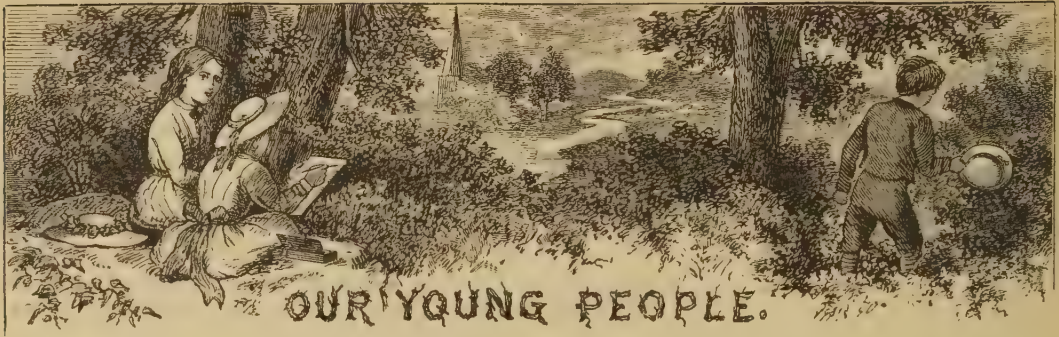
Mrs. McD., Berryville, Va., writes to enquire what can be done to destroy the mealy-bug that infests a Lemon tree. Some soft-soap and water and a brush is as good as anything, if one will wash the leaves one by one and go carefully over the stem and branches. But if it is desired to kill the mealy-bugs first, that can be done by the use of a little benzine. Take a small camel-hair brush and dip it into benzine and touch each insect with it, and then sponge the plant off with clear water.

A. K., of Jacksonville, Oregon, writes that he would "like to know whether it is a good plan to leave Holland Bulbs in the ground and plant annuals among them that have to be watered; we did so last year and the bulbs came up again in the fall because the ground was warm and moist." Evidently in this case it would have been much better to have taken up the bulbs when the foliage indicated ripeness and kept them out of the ground until fall. The constant supply of water they received started them into an unseasonable growth.

## EUPHORBIA MARGINATA.

I notice in the February number of the MAGAZINE an engraving of the *Euphorbia Marginata*. It is a very common plant with us, and I think very pretty for bouquets. But as a warning to others I can say that I have suffered by using it with cut flowers, as it produces the same effect upon the skin as the *Poison Oak* or *Running Ivy* that you have in the east, and is even more pernicious. I had a second experience with it before I knew the cause. Others, to my knowledge, have suffered from it in the same way. I do not now allow it to grow on my premises; although it is a handsome variety in the garden, the milky juice is a sure poison. —A SUBSCRIBER, *Grass Valley, Cal.*





### THE NEW NEIGHBORS.

With such incentives before them, of course Charley and May Foster gave their vines every attention. But one morning Teddy, the man-of-all-work from over the way, wanting the loan of a wheel-barrow, found the young Fosters angry and distressed over the mutilation of their vines. The Ivy had been overturned and gnawed apart midway its length. The tracks all about showed that frolicking dogs had been the culprits. May, pointing to the large tracks, said, "Your dog caused this mischief," and leading the way to Charlie's vines, continued, "My brother was hoping to get a prize at the county fair; now see!" Then Charley added, "I'll never recognize poople who cause their neighbors so much trouble." "Nor I," added May. But this was too much for the loyal Teddy; so he retorted, "The jintle folks acrass the way have daclowned the frindship of as good as yersil's; boot I don't dany the baste was roomin' at lairge last night; the boy foorgot to tie 'im. What way will ye have 'im dastried? Will I bate 'im to dith with cloobs, or wad ye rayther he'd be shot?" As the two merely exchanged glances and said nothing, he added, "It's in a granehouse I wrought in the old counthry, an' I'll take it on mesilf to fix up your vines. They're little broken; the brutes have run through 'em and pairtly pulled 'em doon an' tangled 'em a bit. A spade, shears and twine is what I want." And then he went to work so deftly that when May and brother left him for school they were inspired with some faith in his abilities. But they criticised the way he had spoken of the neighbors. "But I like him the better," said May, "for being true to the family. But we understand now what they are like." As they approached home, after school, they saw a pale boy suddenly disappear from the

front yard across they way, as though avoiding observation. After noting his sudden retreat and again exchanging comments, Charley and May passed into their own yard and on to the piazza. There they were delighted with the trim, tidy appearance of the Ivy and surroundings. Then they went to see the Gourd vines. The sun had been merciful and they were scarcely wilted. So great was their improvement that these two were growing to have great faith in Teddy's powers of reconstruction.

"But I must not expect the prize," sighed Charley, "for the Gourds cannot mature in time for the fair."

"Let's wait," said May, "and hear what Teddy thinks about it."

Then as the dinner bell called them, they assured each other that they should never like Teddy so well again as if he had not talked so pert about his mistress and family.

Meantime Teddy's brain was busy thinking of the Fosters, while his hands trundled the barrow in the interest of his employer; and he finally decided that there was but one thing that he could think of that would be any sort of compensation for the mischief done over the way. So, when the pale boy rambled where he was at work, he asked him if he would make a pair of flower-pot screens, such as he had once made with his scroll-saw from a design of his mother's, adding:

"Ye know I'm often coddlin' plants uv me own, an' I like 'em gintale lookin', an' I thought if I had a coople of tidy-lookin' jackets riddy, they moight coom moighty hondy betimes. I'd pay ye will for yer trouble."

"O, I don't care for the pay," said the boy, "but I would like something to do that would hide that face from my sight,

and take this lonesome out of my heart for one hour."

O, me poor boy! me poor boy! It's me own hairt that cries oot in pain for ye, the like ye war pairt uv me own flish!"

"Yes, I know; but nobody can help me. What size do you want the screens, Teddy?"

"It's for siven-inch pots I'd be moost loikly to nade 'em. Whar ye's war j'ined with brass wires ye moight mak the holes a bit large, balike I may tak a fancy for ribbins." And, bless his old heart, he blushed.

"Well, think I've got the idea, and I'll be glad to make them for you."

Then he went in to his mother, and they divided the circumference of a seven-inch pot, the top and bottom, into eight parts, and one of each gave them the proper width of the top and bottom of the eight parts which formed the sides, or circle.

After a few days had passed, Charley found Teddy one morning surveying the Gourd vines.

"I've had my moind on 'em ivery day," he said, "an' me oye the same."

"Can you tell," inquired Charley, whether I can depend on them for the county fair? You know they got quite a back-set."

"They did! What varry thing ye ask is me consairn. I complemint mesilf that they've hod sooch treatment at the roots as the loikes of sooch low-born troock as Goords niver had afore."

"Why, Teddy! You know yourself that all these kinds are either very curious or very beautiful, or both; and the Balsam is useful in addition. And they would have come out all right had it not been for your old dog!"

"Tut, tut, me boy; don't be so titchy. You don't nade me to till ye that Goords don't balong to the nobeelity in vigitation. An' they're a woorud of contimpt amang pable fair below the quality. But it's wull anoof to axpirement, me boy, an' thry your hond upon 'em. I'm honor-bound that ye git moighty samples of aich koind from these same vines. To do that, we moost choose wan vine uv a sort, an' coot away all but a couple uv the lairgest Goords, an' top the vines an' clup the branches. The two lift on aich vine wull git all the strinth uv the roots. How do it stroike ye?"

"Let us do it this morning," said Charley.

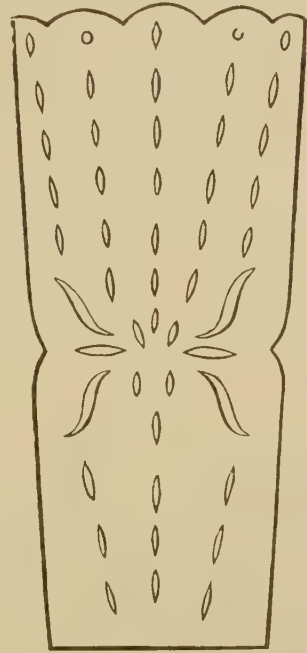
"Mesilf is here for that same, uf ye loike."

So the shears were brought, and Charley helped to "thrid" out a vine of each variety, and learned how to trim and cut them back so as to concentrate the strength within certain bounds.

"An' we'll hov to do it ivery day," said Teddy, "or a lot uv gollopin' rooners wull folly ivery clup."

"That's just what my Ivy is doing this minute," said May, drawing near and asking Teddy to please take a look and say if it were doing right.

"Ye want wan sprout lift at the top to continue the main vine," he said; "an' anither in case uv occedent. This wan



SECTION OF POT SCREEN.

without root is poutin' yit over the siperation; but it's not withered, an' it'll grow. Ivies clings to life savarely—they do. I've sane the laves all but rattle, an' wuth a good washin' they'd grow yit afther that agin. It's a fine Passion Flower ye have beside the door; baloike it's your own raisin'?"

"No, indeed, that is my mother's."

In a few days after this interview, May was astonished to find her mother's pot and her own enclosed in black walnut screens of a new pattern and design—octagonal in form, and the slats joined at top with ribbons and with brass wire at bottom. She called her mother, but she



could only admire, and knew nothing of their source. Then, of course, it was her aunt; but no, her aunt knew nothing. Then she assailed Teddy; but he couldn't be made to understand what she meant. But, finally, getting him cornered, he merely inquired if she didn't know that good fairies steal about at night to "bat-stow bonefits on sich as they loikes!"

"Ah! now," said she, "I've got you now! and away she went and brought her mother, who, besides praising their beauty, found, when too late, that she'd made a terrible mistake in offering to pay him. The noble fellow bowed his head in such embarrassment that nothing more was to be said.

About this time some of the Gourds had grown to a size that imperilled the vines. The Hercules' Club had long before been supported by the limbs of the tree upon which the vine was clinging. Some were suspended by netting, others supported sling-fashion.

Finally, the day came when May found herself compensated for her regular care of the Ivy, and she was saying to herself, "Bless me! this is pleasant, riding on a rail." Sitting near her uncle and aunt she had nothing to look forward to but pleasure. In a few hours they were in the metropolis; then in a street car; then in a glass-roofed amphitheatre such as few cities can claim. There were billows of bloom, making a fragrant sea of flowers. There were curious and strange-looking plants, some of them seeming like animal monstrosities. She was electrified. One Ivy could never content her again! She took out her note-book and copied many names, but on the second day decided that Ruskin is right, that "some of the names of flowers are of the devil's own contriving."

Finally, she and aunt were admiring an isolated group of flowers presided over by a lovely blind girl who had raised them, when a pale boy, who stood near in the crowd, inquired of his mother the name of a certain plant with a few intensely red blossoms of a peculiar form. She did not know, but a lady friend of theirs, who also knew May's aunt and was talking with her, turned and said that it was called "Bleeding Heart." May, hearing the question, had looked up and saw the boy turn deadly white, and as his mother passed her arm around him and drew

him away, she heard him say, "It meets me everywhere. I did not want to come." Her aunt's friend looked distressed, and followed them with her eyes. Finally, turning with a sigh, she explained that about eight months before the boy had accidentally shot a twin brother. The two had never been separated, and for a time the remorse, added to the loss of his brother, seemed likely to kill him. The accident had occurred at a friend's house, where the three boys found on a beam in the barn a pistol left there by the groom.

"And whoever knew a boy," said the lady, "who could see a pistol and leave it alone? They all handled it, and when the fatal shot came, this boy clasped his dead brother in his arms, talking piteously to him all the time, and would not release his hold until he saw his mother enter, when he exclaimed, 'Oh, take him, mother! I did it! I did it!' For two months he would not go outside of home. He said everybody knew it, and lived it over in his dreams; and so they moved away, where he could feel that nobody could know or be thinking about it if they chanced to look at him. And now the unfortunate name of a flower has recalled it all again. A less noble boy could not thus suffer. It is a pitiful case."

With eager interest and conflicting emotions had May listened to this recital, and after she returned home she and Charley put their heads together once again (as we saw them at the beginning of the story), but this time for a very different reason. Now they are contriving some way to get the brother and sister interested in coming to their house. Their mother and aunt are going to help them, and not a word is to be mentioned of the trouble, except to Teddy. Sometime he is to be taken into their confidence.

May is so interested in all this, that she can hardly express properly her joy that Charley won a prize, during her absence, for his curious exhibition of the proofs of his industry. But she does take time to read with some guests from her note-book an item from a lecture which she heard while she was gone, as follows: "Each cell in a leaf is a chemical laboratory, and the sunlight is the fire that separates the carbonic acid which the leaf has imbibed into oxygen and carbon. The carbon is retained to build up the

structure of the plant, and the oxygen is set free and escapes into the atmosphere."

"There!" she exclaims, "isn't that rather grand—all about a green leaf?"—  
AUNT MARJORIE.



### A FRAGMENT.

As a Violet's gentle eye,  
Gazes on the azure sky,  
Until its hue grows like what it beholds;  
As a gray and empty mist  
Lies like solid amethyst,  
Over the western mountain it enfolds,  
When the sunset sleeps  
Upon its snow.

As a strain of sweetest sound  
Wraps itself the wind around,  
Until the voiceless wind be music too;  
As aught dark, vain and dull,  
Basking in what is beautiful  
Is full of light and love.

### SONG-SPARROWS.

My home is among the grand hills of the Keystone State, in a corner of the southwestern part, near the Smoky City. Seeing a young Song-sparrow one day bathing in the water dish in the flower bed under my window, made me think of writing about these birds.

The young Song-sparrows look just like the old ones, only at first their tails are a little shorter and they are plumper and rounder. But perhaps you do not know just how a Song-sparrow looks. He is brown and gray, streaked more or less all over. The Chipping-sparrow, the one with the reddish-brown velvet cap, has a plain, gray breast, but the breast of the Song-sparrow is streaked, and has several irregular dark spots. But you can distinguish him by his song, since he is the only true songster among the Sparrows. In New England he is the harbinger of spring, but here the Blue-bird is the prophet of warm weather, for the Song-sparrows stay with us all the year round. At first these familiar little creatures were as wild as deer. When I began to notice them, in November several years ago, they were in the hollow among the brush and bushes just beyond the little Rasp-

berry patch at the kitchen door, and they never came near the house, but by feeding them in winter, I gradually coaxed them into the garden. At first I carried the food to them, and always put it in the same place, so they soon learned to look for it, and then I put it nearer and nearer to the house, until now I put it in the flower bed directly under my window, and they come all the year round, old and young, and are almost as tame as chickens, and pay no attention to me at all, though at first I dared not show myself at the window. I feed them on corn-meal chiefly. In winter I place it dry, in little heaps, on the snow. At first I used to sweep the snow off the ground, but that is not necessary. They don't mind the snow, though when it is deep and lays long they are glad to get the bare ground sometimes. I have found that they will eat boiled rice, too. They dearly love soaked bread, and they eat all our bread-crusts for us. I keep a water-dish always in the same spot, and place their food near it. If you have patience and "try, try again," you can tame many different kinds of birds.

The Song-sparrow in this climate raises three broods, four in a brood, and in the first brood last summer there was a Cow-



A PAIR OF SONG-SPARROWS.

bird, and I was much amused in watching its behavior. There were only two young Sparrows with it, so its life was at the expense of two Sparrows. How did it get into the Sparrow's nest? Why, the Cow-bird never builds any nest of her own, but lays an egg in a Sparrow's nest, and the Sparrow hatches it with her own. As the Cow-bird is much larger than the Sparrows, it crowds them out and some of them perish. I first detected it among



the young Sparrows by its movements on the ground. It *walks* like a Blackbird, while Sparrows *hop*. Then I saw it was all one color, a dusky gray. It grew very fast, and was soon larger than its little foster-mother. It was comical to see her feed it, for it opened its mouth so wide it seemed as if it would swallow her. Birds feed their young for a long time after they leave the nest. I have seen our Robin feed his young ones when they were as big as himself.

The natural food of the Sparrows is taken mostly from the ground and consists of worms and bugs and beetles of various kinds. In winter they also eat the seeds of Grass and weeds, but I have never seen them eat fruit of any kind, unless, perhaps, dried Wild Cherries, which I have seen them peck at, but I am not sure that they ate them. They are very useful in the garden, for no matter how much bread they eat they always are ready for worms and insects.

They build their nests on the ground, and also in bushes. The eggs are much the color of the birds themselves, mottled brown and grayish white. They usually lay four eggs, though I once found a nest in the Grass with five. The nest is built of dried Grass, and sometimes lined with hair.

The Song-sparrows drive away the pretty little Chipping-sparrows, and I must say I would like them better if they were more amiable. They chase the Cat-birds, which are larger than themselves, and even try to rout the Robin, but he only laughs at them—if birds ever laugh. I have long wished to see how they would treat the English Sparrows, which are said to drive away our native birds. I think my Song-sparrows would be a match for the Johnny Bulls.—JENNY DARE.

#### AUNT MARJORIE'S STORY.

It would require a long statement to explain why the conclusion of the interesting story of "The New Neighbors" was omitted in the March number and finished at this time. But we are sure our young readers will enjoy the concluding portion of it so much that they will be quite satisfied to be informed that the delay was unavoidable. Of one thing they may be certain, and that is, it was not on account of any mistake or tardi-

ness of Aunt Marjorie's, but perhaps if all the facts were known, Uncle Sam might receive some blame.

#### TRAILING ARBUTUS.

Deep in the lonely forest,  
High on the mountain side,  
Long in the dreary winter,  
Short in the summertime:  
Just in the breath between them,  
Pregnant with sun and showers,  
Starts from the earth primeval  
Fairest of northern flowers.

All through the sunny summer  
Lavish with wealth of bloom,  
She, too, hath shared life's fullness  
Hid in her forest gloom;  
Nurtured with dews and sunlight  
Richly her buds are fed,  
Fresh while the summer fadeth,  
Fresh when its flowers are dead.

Then, when the rude winds seek her,  
Threaten her buds to blast,  
Fiercely assailed by winter,  
Fearless she holds them fast;  
Fast, till the spring draws nearer,  
Fast, till the days grow fair,  
Fast, till the April showers  
Quicken the chilly air.

Woke by the murmuring breezes,  
Kissed by the shining sun,  
Up in a burst of transport  
Starteth the prisoned one!  
Blushing in fairy clusters,  
Pressing a mossy bed,  
Leaves of autumnal russet  
Over her soft couch shed.

Close to the damp earth clinging,  
Tender, and pink, and shy;  
Lifting her waxen blossoms  
Up to the changeful sky.  
Welcome! our springtide darling,  
Fresh in thy virgin hue,  
Long as the Oaks stand round thee  
Yearly thy charms renew!

—ELAINE GOODALE.

#### PUBLICATIONS RECEIVED.

Transactions of the Massachusetts Horticultural Society for the Year 1881. Part I.

A record of the vigorous acts of a most useful organization.

The Anatomy of the Mouth-parts and of the Sucking Apparatus of Some Diptera. A dissertation for the purpose of obtaining the philosophical doctorate at the Leipzig University. By GEORGE DIMMOCK.

We have only good wishes for one who has already devoted much time to the study of insects, and whose work in the future promises greatly to benefit American horticulture.

The Book of Plant Descriptions. By GEORGE G. GROFF, A. M., M. D., Lewisburgh, Pa.

Excellent directions for young botanists, with forms for recording the characteristics of plants examined.







MENSING & STECHER, ROCK, N.Y.